Appendices

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APPENDIX A

Omnibus Public Lands Management Act of 2009

This appendix contains the portions of the Omnibus Public Lands Management Act of 2009 (Public Law 111-11, Title I, Subtitle O - Washington County, Utah) that created the Beaver Dam Wash and Red Cliffs National Conservation Areas.

Subtitle O—Washington County, Utah

SEC. 1971. DEFINITIONS.

In this subtitle:

(1) BEAVER DAM WASH NATIONAL CONSERVATION AREA MAP.—The term "Beaver Dam Wash National Conservation Area Map" means the map entitled "Beaver Dam Wash National Conservation Area" and dated December 18, 2008.

(2) CANAAN MOUNTAIN WILDERNESS MAP.—The term "Canaan Mountain Wilderness Map" means the map entitled "Canaan Mountain Wilderness" and dated June 21, 2008.

(3) COUNTY.—The term "County" means Washington County, Utah.

(4) NORTHEASTERN WASHINGTON COUNTY WILDERNESS MAP.— The term "Northeastern Washington County Wilderness Map" means the map entitled "Northeastern Washington County Wilderness" and dated November 12, 2008.

(5) NORTHWESTERN WASHINGTON COUNTY WILDERNESS MAP.—The term "Northwestern Washington County Wilderness Map" means the map entitled "Northwestern Washington County Wilderness" and dated June 21, 2008.

(6) RED CLIFFS NATIONAL CONSERVATION AREA MAP.—The term "Red Cliffs National Conservation Area Map" means the map entitled "Red Cliffs National Conservation Area" and dated November 12, 2008.

(7) SECRETARY.—The term "Secretary" means—

(A) with respect to land under the jurisdiction of the Secretary of Agriculture, the Secretary of Agriculture; and

(B) with respect to land under the jurisdiction of the Secretary of the Interior, the Secretary of the Interior.

(8) STATE.—The term "State" means the State of Utah.

(9) WASHINGTON COUNTY GROWTH AND CONSERVATION ACT MAP.—The term "Washington County Growth and Conservation Act Map" means the map entitled "Washington County Growth and Conservation Act Map" and dated November 13, 2008.

SEC. 1972. WILDERNESS AREAS.

(a) ADDITIONS TO NATIONAL WILDERNESS PRESERVATION SYSTEM.—

(1) ADDITIONS.—Subject to valid existing rights, the following land in the State is designated as wilderness and as components of the National Wilderness Preservation System:

(A) BEARTRAP CANYON.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 40 acres, as generally depicted on the Northeastern Washington County Wilderness Map, which shall be known as the "Beartrap Canyon Wilderness."

(B) BLACKRIDGE.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 13,015 acres, as generally depicted on the Northeastern Washington County Wilderness Map, which shall be known as the "Blackridge Wilderness."

(C) CANAAN MOUNTAIN.—Certain Federal land in the County managed by the Bureau of Land Management, comprising approximately 44,531 acres, as generally depicted on the Canaan Mountain Wilderness Map, which shall be known as the "Canaan Mountain Wilderness."

(D) COTTONWOOD CANYON.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 11,712 acres, as generally depicted on the Red Cliffs National Conservation Area Map, which shall be known as the "Cottonwood Canyon Wilderness."

(E) COTTONWOOD FOREST.—Certain Federal land managed by the Forest Service, comprising approximately 2,643 acres, as generally depicted on the Red Cliffs National Conservation Area Map, which shall be known as the "Cottonwood Forest Wilderness."

(F) COUGAR CANYON.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 10,409 acres, as generally depicted on the Northwestern Washington County Wilderness Map, which shall be known as the "Cougar Canyon Wilderness."

(G) DEEP CREEK.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 3,284 acres, as generally depicted on the Northeastern Washington County Wilderness Map, which shall be known as the "Deep Creek Wilderness."

(H) DEEP CREEK NORTH.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 4,262 acres, as generally depicted on the Northeastern Washington County Wilderness Map, which shall be known as the "Deep Creek North Wilderness."

(I) DOC'S PASS.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 17,294 acres, as generally depicted on the Northwestern

Washington County Wilderness Map, which shall be known as the "Doc's Pass Wilderness."

(J) GOOSE CREEK.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 98 acres, as generally depicted on the Northeastern Washington County Wilderness Map, which shall be known as the "Goose Creek Wilderness."

(K) LAVERKIN CREEK.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 445 acres, as generally depicted on the Northeastern Washington County Wilderness Map, which shall be known as the "LaVerkin Creek Wilderness."

(L) RED BUTTE.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 1,537 acres, as generally depicted on the Northeastern Washington County Wilderness Map, which shall be known as the "Red Butte Wilderness."

(M) RED MOUNTAIN.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 18,729 acres, as generally depicted on the Red

Cliffs National Conservation Area Map, which shall be known as the "Red Mountain Wilderness."

(N) SLAUGHTER CREEK.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 3,901 acres, as generally depicted on the

Northwestern Washington County Wilderness Map, which shall be known as the "Slaughter Creek Wilderness."

(O) TAYLOR CREEK.—Certain Federal land managed by the Bureau of Land Management, comprising approximately 32 acres, as generally depicted on the Northeastern Washington County Wilderness Map, which shall be known as the "Taylor Creek Wilderness."

(2) MAPS AND LEGAL DESCRIPTIONS.—

(A) IN GENERAL.—As soon as practicable after the date of enactment of this Act, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Natural Resources of the House of Representatives a map and legal description of each wilderness area designated by paragraph (1).

(B) FORCE AND EFFECT.—Each map and legal description submitted under subparagraph (A) shall have the same force and effect as if included in this subtitle, except that the Secretary may correct any clerical or typographical errors in the map or legal description.

(C) AVAILABILITY.—Each map and legal description submitted under subparagraph (A) shall be available in the appropriate offices of—

(i) the Bureau of Land Management; and

(ii) the Forest Service.

(b) ADMINISTRATION OF WILDERNESS AREAS.—

(1) MANAGEMENT.—Subject to valid existing rights, each area designated as wilderness by subsection (a)(1) shall be administered by the Secretary in accordance with the Wilderness Act (16 U.S.C. 1131 et seq.), except that—

(A) any reference in the Wilderness Act to the effective date of that Act shall be considered to be a reference to the date of enactment of this Act; and

(B) any reference in the Wilderness Act to the Secretary of Agriculture shall be considered to be a reference to the Secretary that has jurisdiction over the land.

(2) LIVESTOCK.—The grazing of livestock in each area designated as wilderness by subsection (a)(1), where established before the date of enactment of this Act, shall be permitted to continue—

(A) subject to such reasonable regulations, policies, and practices that the Secretary considers necessary; and

(B) in accordance with—

(i) section 4(d)(4) of the Wilderness Act (16 U.S.C. 1133(d)(4)); and

(ii) the guidelines set forth in Appendix A of the report of the Committee on Interior and Insular Affairs of the House of Representatives accompanying H.R. 2570 of the 101st Congress (H.Rep. 101–405) and H.R. 5487 of the 96th Congress (H. Rept. 96–617).

(3) WILDFIRE, INSECT, AND DISEASE MANAGEMENT.—In accordance with section 4(d)(1) of the Wilderness Act (16 U.S.C.1133(d)(1)), the Secretary may take such measures in each area designated as wilderness by subsection (a)(1) as the Secretary determines to be necessary for the control of fire, insects, and diseases (including, as the Secretary determines to be appropriate, the coordination of those activities with a State or local agency).

(4) BUFFER ZONES.—

(A) IN GENERAL.—Nothing in this section creates a protective perimeter or buffer zone around any area designated as wilderness by subsection (a)(1).

(B) ACTIVITIES OUTSIDE WILDERNESS.—The fact that an activity or use on land outside any area designated as wilderness by subsection (a)(1) can be seen or heard within the wilderness shall not preclude the activity or use outside the boundary of the wilderness.

(5) MILITARY OVERFLIGHTS.—Nothing in this section restricts or precludes—

(A) low-level overflights of military aircraft over any area designated as wilderness by subsection (a)(1), including military overflights that can be seen or heard within any wilderness area;

(B) flight testing and evaluation; or

(C) the designation or creation of new units of special use airspace, or the establishment of military flight training routes over any wilderness area.

(6) ACQUISITION AND INCORPORATION OF LAND AND INTERESTS IN LAND.—

(A) ACQUISITION AUTHORITY.—In accordance with applicable laws (including regulations), the Secretary may acquire any land or interest in land within the boundaries of the wilderness areas designated by subsection (a)(1) by purchase from willing sellers, donation, or exchange.

(B) INCORPORATION.—Any land or interest in land acquired by the Secretary under subparagraph (A) shall be incorporated into, and administered as a part of, the wilderness area in which the land or interest in land is located.

(7) NATIVE AMERICAN CULTURAL AND RELIGIOUS USES.— Nothing in this section diminishes—

(A) the rights of any Indian tribe; or

(B) any tribal rights regarding access to Federal land for tribal activities, including spiritual, cultural, and traditional food-gathering activities.

(8) CLIMATOLOGICAL DATA COLLECTION.—In accordance with the Wilderness Act (16 U.S.C. 1131 et seq.) and subject to such terms and conditions as the Secretary may prescribe, the Secretary may authorize the installation and maintenance of hydrologic, meteorologic, or climatological collection devices in the wilderness areas designated by subsection (a)(1) if the Secretary determines that the facilities and access to the facilities are essential to flood warning, flood control, or water reservoir operation activities.

(9) WATER RIGHTS.—

(A) STATUTORY CONSTRUCTION.—Nothing in this section—

(i) shall constitute or be construed to constitute either an express or implied reservation by the United States of any water or water rights with respect to the land designated as wilderness by subsection (a)(1);

(ii) shall affect any water rights in the State existing on the date of enactment of this Act, including any water rights held by the United States;

(iii) shall be construed as establishing a precedent with regard to any future wilderness designations;

(iv) shall affect the interpretation of, or any designation made pursuant to, any other Act; or

(v) shall be construed as limiting, altering, modifying, or amending any of the interstate compacts or equitable apportionment decrees that apportion water among and between the State and other States.

(B) STATE WATER LAW.—The Secretary shall follow the procedural and substantive requirements of the law of the State in order to obtain and hold any water rights not in existence on the date of enactment of this Act with respect to the wilderness areas designated by subsection (a)(1).

(10) FISH AND WILDLIFE.—

(A) JURISDICTION OF STATE.—Nothing in this section affects the jurisdiction of the State with respect to fish and wildlife on public land located in the State.

(B) AUTHORITY OF SECRETARY.—In furtherance of the purposes and principles of the Wilderness Act (16 U.S.C. 1131 et seq.), the Secretary may carry out management activities to maintain or restore fish and wildlife populations (including activities to maintain and restore fish and wildlife habitats to support the populations) in any wilderness area designated by subsection (a)(1) if the activities are—

(i) consistent with applicable wilderness management plans; and

(ii) carried out in accordance with—

(I) the Wilderness Act (16 U.S.C. 1131 et seq.); and

(II) applicable guidelines and policies, including applicable policies described in Appendix B of House Report 101–405.

(11) WILDLIFE WATER DEVELOPMENT PROJECTS.—Subject to paragraph (12), the Secretary may authorize structures and facilities, including existing structures and facilities, for wildlife water development projects, including guzzlers, in the wilderness areas designated by subsection (a)(1) if—

(A) the structures and facilities will, as determined by the Secretary, enhance wilderness values by promoting healthy, viable, and more naturally distributed wildlife populations; and

(B) the visual impacts of the structures and facilities on the wilderness areas can reasonably be minimized.

(12) COOPERATIVE AGREEMENT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall enter into a cooperative agreement with the State that specifies the terms and conditions under which wildlife management activities in the wilderness areas designated by subsection (a)(1) may be carried out.

(c) RELEASE OF WILDERNESS STUDY AREAS.—

(1) FINDING.—Congress finds that, for the purposes of section 603 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1782), the public land in the County administered by the Bureau of Land Management has been adequately studied for wilderness designation.

(2) RELEASE.—Any public land described in paragraph (1) that is not designated as wilderness by subsection (a)(1)—

(A) is no longer subject to section 603(c) of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1782(c)); and

(B) shall be managed in accordance with applicable law and the land management plans adopted under section 202 of that Act (43 U.S.C. 1712).

(d) TRANSFER OF ADMINISTRATIVE JURISDICTION TO NATIONAL PARK SERVICE.—Administrative jurisdiction over the land identified as the Watchman Wilderness on the Northeastern Washington County Wilderness Map is hereby transferred to the National Park Service, to be included in, and administered as part of Zion National Park.

SEC. 1973. ZION NATIONAL PARK WILDERNESS.

(a) DEFINITIONS.—In this section:

(1) FEDERAL LAND.—The term "Federal land" means certain Federal land—

(A) that is—

(i) located in the County and Iron County, Utah; and

(ii) managed by the National Park Service;

(B) consisting of approximately 124,406 acres; and

(C) as generally depicted on the Zion National Park Wilderness Map and the area added to the park under section 1972(d).

(2) WILDERNESS AREA.—The term "Wilderness Area" means the Zion Wilderness designated by subsection (b)(1).

(3) ZION NATIONAL PARK WILDERNESS MAP.—The term "Zion National Park Wilderness Map" means the map entitled "Zion National Park Wilderness" and dated April 2008.

(b) ZION NATIONAL PARK WILDERNESS.—

(1) DESIGNATION.—Subject to valid existing rights, the Federal land is designated as wilderness and as a component of the National Wilderness Preservation System, to be known as the "Zion Wilderness."

(2) INCORPORATION OF ACQUIRED LAND.—Any land located in the Zion National Park that is acquired by the Secretary through a voluntary sale, exchange, or donation may, on the recommendation of the Secretary, become part of the Wilderness Area, in accordance with the Wilderness Act (16 U.S.C. 1131 et seq.).

(3) MAP AND LEGAL DESCRIPTION.—

(A) IN GENERAL.—As soon as practicable after the date of enactment of this Act, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Natural Resources of the House of Representatives a map and legal description of the Wilderness Area.

(B) FORCE AND EFFECT.—The map and legal description submitted under subparagraph (A) shall have the same force and effect as if included in this Act, except that the Secretary may correct any clerical or typographical errors in the map or legal description.

(C) AVAILABILITY.—The map and legal description submitted under subparagraph (A) shall be available in the appropriate offices of the National Park Service.

SEC. 1974. RED CLIFFS NATIONAL CONSERVATION AREA.

(a) PURPOSES.—The purposes of this section are—

(1) to conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the National Conservation Area; and

(2) to protect each species that is—

(A) located in the National Conservation Area; and

(B) listed as a threatened or endangered species on the list of threatened species or the list of endangered species published under section 4(c)(1) of the Endangered Species Act of 1973 (16 U.S.C. 1533(c)(1)).

(b) DEFINITIONS.—In this section:

(1) HABITAT CONSERVATION PLAN.—The term "habitat conservation plan" means the conservation plan entitled "Washington County Habitat Conservation Plan" and dated February 23, 1996.

(2) MANAGEMENT PLAN.—The term "management plan" means the management plan for the National Conservation Area developed by the Secretary under subsection (d)(1).

(3) NATIONAL CONSERVATION AREA.—The term "National Conservation Area" means the Red Cliffs National Conservation Area that—

(A) consists of approximately 44,725 acres of public land in the County, as generally depicted on the Red Cliffs National Conservation Area Map; and

(B) is established by subsection (c).

(4) PUBLIC USE PLAN.—The term "public use plan" means the use plan entitled "Red Cliffs Desert Reserve Public Use Plan" and dated June 12, 2000, as amended.

(5) RESOURCE MANAGEMENT PLAN.—The term "resource management plan" means the management plan entitled "St. George Field Office Resource Management Plan" and dated March 15, 1999, as amended.

(c) ESTABLISHMENT.—Subject to valid existing rights, there is established in the State the Red Cliffs National Conservation Area.

(d) MANAGEMENT PLAN.—

(1) IN GENERAL.—Not later than 3 years after the date of enactment of this Act and in accordance with paragraph (2), the Secretary shall develop a comprehensive plan for the long-term management of the National Conservation Area.

(2) CONSULTATION.—In developing the management plan required under paragraph (1), the Secretary shall consult with—

(A) appropriate State, tribal, and local governmental entities; and

(B) members of the public.

(3) INCORPORATION OF PLANS.—In developing the management plan required under paragraph (1), to the extent consistent with this section, the Secretary may incorporate any provision of—

(A) the habitat conservation plan;

(B) the resource management plan; and

(C) the public use plan.

(e) MANAGEMENT.—

(1) IN GENERAL.—The Secretary shall manage the National Conservation Area—

(A) in a manner that conserves, protects, and enhances the resources of the National Conservation Area; and

(B) in accordance with—

(i) the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.);

(ii) this section; and

(iii) any other applicable law (including regulations).

(2) USES.—The Secretary shall only allow uses of the National Conservation Area that the Secretary determines would further a purpose described in subsection (a).

(3) MOTORIZED VEHICLES.—Except in cases in which motorized vehicles are needed for administrative purposes, or to respond to an emergency, the use of motorized vehicles in the National Conservation Area shall be permitted only on roads designated by the management plan for the use of motorized vehicles.

(4) GRAZING.—The grazing of livestock in the National Conservation Area, where established before the date of enactment of this Act, shall be permitted to continue—

(A) subject to—

(i) such reasonable regulations, policies, and practices as the Secretary considers necessary; and

(ii) applicable law; and

(B) in a manner consistent with the purposes described in subsection (a).

(5) WILDLAND FIRE OPERATIONS.—Nothing in this section prohibits the Secretary, in cooperation with other Federal, State, and local agencies, as appropriate, from conducting wildland fire operations in the National Conservation Area, consistent with the purposes of this section.

(f) INCORPORATION OF ACQUIRED LAND AND INTERESTS.—Any land or interest in land that is located in the National Conservation Area that is acquired by the United States shall—

(1) become part of the National Conservation Area; and

(2) be managed in accordance with—

(A) the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.);

(B) this section; and

(C) any other applicable law (including regulations).

(g) WITHDRAWAL.—

(1) IN GENERAL.—Subject to valid existing rights, all Federal land located in the National Conservation Area are withdrawn from—

(A) all forms of entry, appropriation, and disposal under the public land laws;

(B) location, entry, and patenting under the mining laws; and

(C) operation of the mineral leasing, mineral materials, and geothermal leasing laws.

(2) ADDITIONAL LAND.—If the Secretary acquires additional land that is located in the National Conservation Area after the date of enactment of this Act, the land is withdrawn from operation of the laws referred to in paragraph (1) on the date of acquisition of the land.

(h) EFFECT.—Nothing in this section prohibits the authorization of the development of utilities within the National Conservation Area if the development is carried out in accordance with—

(1) each utility development protocol described in the habitat conservation plan; and

(2) any other applicable law (including regulations).

SEC. 1975. BEAVER DAM WASH NATIONAL CONSERVATION AREA.

(a) PURPOSE.—The purpose of this section is to conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the Beaver Dam Wash National Conservation Area.

(b) DEFINITIONS.—In this section:

(1) MANAGEMENT PLAN.—The term "management plan" means the management plan for the National Conservation Area developed by the Secretary under subsection (d)(1).

(2) NATIONAL CONSERVATION AREA.—The term "National Conservation Area" means the Beaver Dam Wash National Conservation Area that—

(A) consists of approximately 68,083 acres of public land in the County, as generally depicted on the Beaver Dam Wash National Conservation Area Map; and

(B) is established by subsection (c).

(c) ESTABLISHMENT.—Subject to valid existing rights, there is established in the State the Beaver Dam Wash National Conservation Area.

(d) MANAGEMENT PLAN.—

(1) IN GENERAL.—Not later than 3 years after the date of enactment of this Act and in accordance with paragraph (2), the Secretary shall develop a comprehensive plan for the long-term management of the National Conservation Area.

(2) CONSULTATION.—In developing the management plan required under paragraph (1), the Secretary shall consult with—

(A) appropriate State, tribal, and local governmental entities; and

(B) members of the public.

(3) MOTORIZED VEHICLES.—In developing the management plan required under paragraph (1), the Secretary shall incorporate the restrictions on motorized vehicles described in subsection (e)(3).

(e) MANAGEMENT.—

(1) IN GENERAL.—The Secretary shall manage the National Conservation Area—

(A) in a manner that conserves, protects, and enhances the resources of the National Conservation Area; and

(B) in accordance with—

(i) the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.);

(ii) this section; and

(iii) any other applicable law (including regulations).

(2) USES.—The Secretary shall only allow uses of the National Conservation Area that the Secretary determines would further the purpose described in subsection (a).

(3) MOTORIZED VEHICLES.—

(A) IN GENERAL.—Except in cases in which motorized vehicles are needed for administrative purposes, or to respond to an emergency, the use of motorized vehicles in the National Conservation Area shall be permitted only on roads designated by the management plan for the use of motorized vehicles.

(B) ADDITIONAL REQUIREMENT RELATING TO CERTAIN AREAS LOCATED IN THE NATIONAL CONSERVATION AREA.— In addition to the requirement described in subparagraph (A), with respect to the areas designated on the Beaver Dam Wash National Conservation Area Map as "Designated Road Areas", motorized vehicles shall be permitted only on the roads identified on such map.

(4) GRAZING.—The grazing of livestock in the National Conservation Area, where established before the date of enactment of this Act, shall be permitted to continue—

(A) subject to—

(i) such reasonable regulations, policies, and practices as the Secretary considers necessary; and

(ii) applicable law (including regulations); and

(B) in a manner consistent with the purpose described in subsection (a).

(5) WILDLAND FIRE OPERATIONS.—Nothing in this section prohibits the Secretary, in cooperation with other Federal, State, and local agencies, as appropriate, from conducting wildland fire operations in the National Conservation Area, consistent with the purposes of this section.

(f) INCORPORATION OF ACQUIRED LAND AND INTERESTS.—Any land or interest in land that is located in the National Conservation Area that is acquired by the United States shall—

(1) become part of the National Conservation Area; and

(2) be managed in accordance with—

(A) the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.);

(B) this section; and

(C) any other applicable law (including regulations).

(g) WITHDRAWAL.—

(1) IN GENERAL.—Subject to valid existing rights, all Federal land located in the National Conservation Area is withdrawn from—

(A) all forms of entry, appropriation, and disposal under the public land laws;

(B) location, entry, and patenting under the mining laws; and

(C) operation of the mineral leasing, mineral materials, and geothermal leasing laws.

(2) ADDITIONAL LAND.—If the Secretary acquires additional land that is located in the National Conservation Area after the date of enactment of this Act, the land is withdrawn from operation of the laws referred to in paragraph (1) on the date of acquisition of the land.

SEC. 1976. ZION NATIONAL PARK WILD AND SCENIC RIVER DESIGNATION.

(a) DESIGNATION.—Section 3(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1274(a)) (as amended by section 1852) is amended by adding at the end the following:

"(204) ZION NATIONAL PARK, UTAH.—The approximately 165.5 miles of segments of the Virgin River and tributaries of the Virgin River across Federal land within and adjacent to Zion National Park, as generally depicted on the map entitled 'Wild and Scenic River Segments Zion National Park and Bureau of Land Management' and dated April 2008, to be administered by the Secretary of the Interior in the following classifications:

"(A) TAYLOR CREEK.—The 4.5-mile segment from the junction of the north, middle, and south forks of Taylor Creek, west to the park boundary and adjacent land rim-to-rim, as a scenic river.

"(B) NORTH FORK OF TAYLOR CREEK.—The segment from the head of North Fork to the junction with Taylor Creek and adjacent land rim-to-rim, as a wild river.

"(C) MIDDLE FORK OF TAYLOR CREEK.—The segment from the head of Middle Fork on Bureau of Land Management land to the junction with Taylor Creek and adjacent land rim-to-rim, as a wild river.

"(D) SOUTH FORK OF TAYLOR CREEK.—The segment from the head of South Fork to the junction with Taylor Creek and adjacent land rim-to-rim, as a wild river.

"(E) TIMBER CREEK AND TRIBUTARIES.—The 3.1-mile segment from the head of Timber Creek and tributaries of Timber Creek to the junction with LaVerkin Creek and adjacent land rim-to-rim, as a wild river.

"(F) LAVERKIN CREEK.—The 16.1-mile segment beginning in T. 38 S., R. 11 W., sec. 21, on Bureau of Land Management land, southwest through Zion National Park, and ending at the south end of T. 40 S., R. 12 W., sec. 7, and adjacent land 1⁄2-mile wide, as a wild river.

"(G) WILLIS CREEK.—The 1.9-mile segment beginning on Bureau of Land Management land in the SWSW sec. 27, T. 38 S., R. 11 W., to the junction with LaVerkin Creek in Zion National Park and adjacent land rim-to-rim, as a wild river.

"(H) BEARTRAP CANYON.—The 2.3-mile segment beginning on Bureau of Management land in the SWNW sec. 3, T. 39 S., R. 11 W., to the junction with LaVerkin Creek and the segment from the headwaters north of Long Point to the junction with LaVerkin Creek and adjacent land rim-to-rim, as a wild river.

"(I) HOP VALLEY CREEK.—The 3.3-mile segment beginning at the southern boundary of T. 39 S., R. 11 W., sec. 20, to the junction with LaVerkin Creek and adjacent land 1/2-mile wide, as a wild river.

"(J) CURRENT CREEK.—The 1.4-mile segment from the head of Current Creek to the junction with LaVerkin Creek and adjacent land rim-to-rim, as a wild river.

"(K) CANE CREEK.—The 0.6-mile segment from the head of Smith Creek to the junction with LaVerkin Creek and adjacent land 1/2-mile wide, as a wild river.

"(L) SMITH CREEK.—The 1.3-mile segment from the head of Smith Creek to the junction with LaVerkin Creek and adjacent land 1/2-mile wide, as a wild river.

"(M) NORTH CREEK LEFT AND RIGHT FORKS.—The segment of the Left Fork from the junction with Wildcat Canyon to the junction with Right Fork, from the head of Right Fork to the junction with Left Fork, and from the junction of the Left and Right Forks southwest to Zion National Park boundary and adjacent land rim-to-rim, as a wild river.

"(N) WILDCAT CANYON (BLUE CREEK).—The segment of Blue Creek from the Zion National Park boundary to the junction with the Right Fork of North Creek and adjacent land rim-to-rim, as a wild river.

"(O) LITTLE CREEK.—The segment beginning at the head of Little Creek to the junction with the Left Fork of North Creek and adjacent land 1/2-mile wide, as a wildriver.

"(P) RUSSELL GULCH.—The segment from the head of Russell Gulch to the junction with the Left Fork of North Creek and adjacent land rim-to-rim, as a wild river.

"(Q) GRAPEVINE WASH.—The 2.6-mile segment from the Lower Kolob Plateau to the junction with the Left Fork of North Creek and adjacent land rim-to-rim, as a scenic river.

"(R) PINE SPRING WASH.—The 4.6-mile segment to the junction with the left fork of North Creek and adjacent land 1/2-mile, as a scenic river.

"(S) WOLF SPRINGS WASH.—The 1.4-mile segment from the head of Wolf Springs Wash to the junction with Pine Spring Wash and adjacent land 1/2-mile wide, as a scenic river.

"(T) KOLOB CREEK.—The 5.9-mile segment of Kolob Creek beginning in T. 39 S., R. 10 W., sec. 30, through Bureau of Land Management land and Zion National Park land to the junction with the North Fork of the Virgin River and adjacent land rim-to-rim, as a wild river.

"(U) OAK CREEK.—The 1-mile stretch of Oak Creek beginning in T. 39 S., R. 10 W., sec. 19, to the junction with Kolob Creek and adjacent land rim-to-rim, as a wild river.

"(V) GOOSE CREEK.—The 4.6-mile segment of Goose Creek from the head of Goose Creek to the junction with the North Fork of the Virgin River and adjacent land rim-to-rim, as a wild river.

"(W) DEEP CREEK.—The 5.3-mile segment of Deep Creek beginning on Bureau of Land Management land at the northern boundary of T. 39 S., R. 10 W., sec. 23, south to the junction of the North Fork of the Virgin River and adjacent land rim-to-rim, as a wild river.

"(X) NORTH FORK OF THE VIRGIN RIVER.—The 10.8-mile segment of the North Fork of the Virgin River beginning on Bureau of Land Management land at the eastern border of T. 39 S., R. 10 W., sec. 35, to Temple of Sinawava and adjacent land rim-to-rim, as a wild river.

"(Y) NORTH FORK OF THE VIRGIN RIVER.—The 8-mile segment of the North Fork of the Virgin River from Temple of Sinawava south to the Zion National Park boundary and adjacent land 1/2-mile wide, as a recreational river.

"(Z) IMLAY CANYON.—The segment from the head of Imlay Creek to the junction with the North Fork of the Virgin River and adjacent land rim-to-rim, as a wild river.

"(AA) ORDERVILLE CANYON.—The segment from the eastern boundary of Zion National Park to the junction with the North Fork of the Virgin River and adjacent land rim-to-rim, as a wild river.

"(BB) MYSTERY CANYON.—The segment from the head of Mystery Canyon to the junction with the North Fork of the Virgin River and adjacent land rim-to-rim, as a wild river.

"(CC) ECHO CANYON.—The segment from the eastern boundary of Zion National Park to the junction with the North Fork of the Virgin River and adjacent land rim-to-rim, as a wild river.

"(DD) BEHUNIN CANYON.—The segment from the head of Behunin Canyon to the junction with the North Fork of the Virgin River and adjacent land rim-to-rim, as a wild river.

"(EE) HEAPS CANYON.—The segment from the head of Heaps Canyon to the junction with the North Fork of the Virgin River and adjacent land rim-to-rim, as a wild river.

"(FF) BIRCH CREEK.—The segment from the head of Birch Creek to the junction with the North Fork of the Virgin River and adjacent land 1/2-mile wide, as a wild river.

"(GG) OAK CREEK.—The segment of Oak Creek from the head of Oak Creek to where the forks join and adjacent land 1/2-mile wide, as a wild river.

"(HH) OAK CREEK.—The 1-mile segment of Oak Creek from the point at which the 2 forks of Oak Creek join to the junction with the North Fork of the Virgin River and adjacent land 1/2-mile wide, as a recreational river.

"(II) CLEAR CREEK.—The 6.4-mile segment of Clear Creek from the eastern boundary of Zion National Park to the junction with Pine Creek and adjacent land rim-to-rim, as a recreational river.

"(JJ) PINE CREEK .—The 2-mile segment of Pine Creek from the head of Pine Creek to the junction with Clear Creek and adjacent land rim-to-rim, as a wild river.

"(KK) PINE CREEK.—The 3-mile segment of Pine Creek from the junction with Clear Creek to the junction with the North Fork of the Virgin River and adjacent land rim-to-rim, as a recreational river.

"(LL) EAST FORK OF THE VIRGIN RIVER.—The 8-mile segment of the East Fork of the Virgin River from the eastern boundary of Zion National Park through Parunuweap Canyon to the western boundary of Zion National Park and adjacent land 1/2-mile wide, as a wild river.

"(MM) SHUNES CREEK.—The 3-mile segment of Shunes Creek from the dry waterfall on land administered by the Bureau of Land Management through Zion National Park to the western boundary of Zion National Park and adjacent land 1/2-mile wide as a wild river.".

(b) INCORPORATION OF ACQUIRED NON-FEDERAL LAND.—If the United States acquires any non-Federal land within or adjacent to Zion National Park that includes a river segment that is contiguous to a river segment of the Virgin River designated as a wild, scenic, or recreational river by paragraph (204) of section 3(a) of the Wild and Scenic Rivers Act (16 U.S.C. 1274(a)) (as added by subsection (a)), the acquired river segment shall be incorporated in, and be administered as part of, the applicable wild, scenic, or recreational river.

(c) SAVINGS CLAUSE.—The amendment made by subsection (a) does not affect the agreement among the United States, the State, the Washington County Water Conservancy District, and the Kane County Water Conservancy District entitled "Zion National Park Water Rights Settlement Agreement" and dated December 4, 1996.

SEC. 1977. WASHINGTON COUNTY COMPREHENSIVE TRAVEL AND TRANSPORTATION MANAGEMENT PLAN.

(a) DEFINITIONS.—In this section:

(1) SECRETARY.—The term "Secretary" means the Secretary of the Interior.

(2) SECRETARY CONCERNED.—The term "Secretary concerned" means—

(A) with respect to land managed by the Bureau of Land Management, the Secretary; and

(B) with respect to land managed by the Forest Service, the Secretary of Agriculture.

(3) TRAIL.—The term "trail" means the High Desert Off- Highway Vehicle Trail designated under subsection (c)(1)(A).

(4) TRAVEL MANAGEMENT PLAN.—The term "travel management plan" means the comprehensive travel and transportation management plan developed under subsection (b)(1).

(b) COMPREHENSIVE TRAVEL AND TRANSPORTATION MANAGEMENT PLAN.—

(1) IN GENERAL.—Not later than 3 years after the date of enactment of this Act, in accordance with the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) and other applicable laws (including regulations), the Secretary, in consultation with appropriate Federal agencies and State, tribal, and local governmental entities, and after an opportunity for public comment, shall develop a comprehensive travel management plan for the land managed by the Bureau of Land Management in the County—

(A) to provide to the public a clearly marked network of roads and trails with signs and maps to promote—

(i) public safety and awareness; and

(ii) enhanced recreation and general access opportunities;

(B) to help reduce in the County growing conflicts arising from interactions between—

(i) motorized recreation; and

(ii) the important resource values of public land;

(C) to promote citizen-based opportunities for—

(i) the monitoring and stewardship of the trail; and

(ii) trail system management; and

(D) to support law enforcement officials in promoting—

(i) compliance with off-highway vehicle laws (including regulations); and

(ii) effective deterrents of abuses of public land.

(2) SCOPE; CONTENTS.—In developing the travel management plan, the Secretary shall—

(A) in consultation with appropriate Federal agencies, State, tribal, and local governmental entities (including the County and St. George City, Utah), and the public, identify 1 or more alternatives for a northern transportation route in the County;

(B) ensure that the travel management plan contains a map that depicts the trail; and

(C) designate a system of areas, roads, and trails for mechanical and motorized use.

(c) DESIGNATION OF TRAIL.—

(1) DESIGNATION.—

(A) IN GENERAL.—As a component of the travel management plan, and in accordance with subparagraph (B), the Secretary, in coordination with the Secretary of Agriculture, and after an opportunity for public comment, shall designate a trail (which may include a system of trails)—

(i) for use by off-highway vehicles; and

(ii) to be known as the "High Desert Off-Highway Vehicle Trail".

(B) REQUIREMENTS.—In designating the trail, the Secretary shall only include trails that are—

(i) as of the date of enactment of this Act, authorized for use by off-highway vehicles; and

(ii) located on land that is managed by the Bureau of Land Management in the County.

(C) NATIONAL FOREST LAND.—The Secretary of Agriculture, in coordination with the Secretary and in accordance with applicable law, may designate a portion of the trail on National Forest System land within the County.

(D) MAP.—A map that depicts the trail shall be on file and available for public inspection in the appropriate offices of—

(i) the Bureau of Land Management; and

(ii) the Forest Service.

(2) MANAGEMENT.—

(A) IN GENERAL.—The Secretary concerned shall manage the trail—

(i) in accordance with applicable laws (including regulations);

(ii) to ensure the safety of citizens who use the trail; and

(iii) in a manner by which to minimize any damage to sensitive habitat or cultural resources.

(B) MONITORING; EVALUATION.—To minimize the impacts of the use of the trail on environmental and cultural resources, the Secretary concerned shall—

(i) annually assess the effects of the use of off-highway vehicles on—

(I) the trail; and

(II) land located in proximity to the trail; and

(ii) in consultation with the Utah Department of Natural Resources, annually assess the effects of the use of the trail on wildlife and wildlife habitat.

(C) CLOSURE.—The Secretary concerned, in consultation with the State and the County, and subject to subparagraph (D), may temporarily close or permanently reroute a portion of the trail if the Secretary concerned determines that—

(i) the trail is having an adverse impact on—

(I) wildlife habitats;

(II) natural resources;

(III) cultural resources; or

(IV) traditional uses;

(ii) the trail threatens public safety; or

(iii) closure of the trail is necessary—

(I) to repair damage to the trail; or

(II) to repair resource damage.

(D) REROUTING.—Any portion of the trail that is temporarily closed by the Secretary concerned under subparagraph (C) may be permanently rerouted along any road or trail—

(i) that is—

(I) in existence as of the date of the closure of the portion of the trail;

(II) located on public land; and

(III) open to motorized use; and

(ii) if the Secretary concerned determines that rerouting the portion of the trail would not signifi cantly increase or decrease the length of the trail.

(E) NOTICE OF AVAILABLE ROUTES.—The Secretary, in coordination with the Secretary of Agriculture, shall ensure that visitors to the trail have access to adequate notice relating to the availability of trail routes through—

(i) the placement of appropriate signage along the trail; and

(ii) the distribution of maps, safety education materials, and other information that the Secretary concerned determines to be appropriate.

(3) EFFECT.—Nothing in this section affects the ownership, management, or other rights relating to any non-Federal land (including any interest in any non-Federal land).

SEC. 1978. LAND DISPOSAL AND ACQUISITION.

(a) IN GENERAL.—Consistent with applicable law, the Secretary of the Interior may sell public land located within Washington County, Utah, that, as of July 25, 2000, has been identified for disposal in appropriate resource management plans.

(b) USE OF PROCEEDS.—

(1) IN GENERAL.—Notwithstanding any other provision of law (other than a law that specifically provides for a portion of the proceeds of a land sale to be distributed to any trust fund of the State), proceeds from the sale of public land under subsection (a) shall be deposited in a separate account in the Treasury to be known as the "Washington County, Utah Land Acquisition Account".

(2) AVAILABILITY.—

(A) IN GENERAL.—Amounts in the account shall be available to the Secretary, without further appropriation, to purchase from willing sellers lands or interests in land within the wilderness areas and National Conservation Areas established by this subtitle.

(B) APPLICABILITY.—Any purchase of land or interest in land under subparagraph (A) shall be in accordance with applicable law.

SEC. 1979. MANAGEMENT OF PRIORITY BIOLOGICAL AREAS.

(a) IN GENERAL.—In accordance with applicable Federal laws (including regulations), the Secretary of the Interior shall—

(1) identify areas located in the County where biological conservation is a priority; and

(2) undertake activities to conserve and restore plant and animal species and natural communities within such areas.

(b) GRANTS; COOPERATIVE AGREEMENTS.—In carrying out subsection (a), the Secretary of the Interior may make grants to, or enter into cooperative agreements with, State, tribal, and local governmental entities and private entities to conduct research, develop scientific analyses, and carry out any other initiative relating to the restoration or conservation of the areas.

SEC. 1980. PUBLIC PURPOSE CONVEYANCES.

(a) IN GENERAL.—Notwithstanding the land use planning requirements of sections 202 and 203 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1712, 1713), upon the request of the appropriate local governmental entity, as described below, the Secretary shall convey the following parcels of public land without consideration, subject to the provisions of this section:

(1) TEMPLE QUARRY.—The approximately 122-acre parcel known as "Temple Quarry" as generally depicted on the Washington County Growth and Conservation Act Map as "Parcel B", to the City of St. George, Utah, for open space and public recreation purposes.

(2) HURRICANE CITY SPORTS PARK.—The approximately 41-acre parcel as generally depicted on the Washington County Growth and Conservation Act Map as "Parcel C", to the City of Hurricane, Utah, for public recreation purposes and public administrative offices.

(3) WASHINGTON COUNTY SCHOOL DISTRICT.—The approximately 70-acre parcel as generally depicted on the Washington County Growth and Conservation Act Map as "Parcel D", to the Washington County Public School District for use for public school and related educational and administrative purposes.

(4) WASHINGTON COUNTY JAIL.—The approximately 80-acre parcel as generally depicted on the Washington County Growth and Conservation Act Map as "Parcel E", to Washington County, Utah, for expansion of the Purgatory Correctional Facility.

(5) HURRICANE EQUESTRIAN PARK.—The approximately 40-acre parcel as generally depicted on the Washington County Growth and Conservation Act Map as "Parcel F", to the City of Hurricane, Utah, for use as a public equestrian park.

(b) MAP AND LEGAL DESCRIPTIONS.—As soon as practicable after the date of enactment of this Act, the Secretary shall finalize legal descriptions of the parcels to be conveyed under this section. The Secretary may correct any minor errors in the map referenced in subsection (a) or in the applicable legal descriptions. The map and legal descriptions shall be on file and available for public inspection in the appropriate offices of the Bureau of Land Management.

(c) REVERSION.—

(1) IN GENERAL.—If any parcel conveyed under this section ceases to be used for the public purpose for which the parcel was conveyed, as described in subsection (a), the land shall, at the discretion of the Secretary based on his determination of the best interests of the United States, revert to the United States.

(2) RESPONSIBILITY OF LOCAL GOVERNMENTAL ENTITY.—If the Secretary determines pursuant to paragraph (1) that the land should revert to the United States, and if the Secretary determines that the land is contaminated with hazardous waste, the local governmental entity to which the land was conveyed shall be responsible for remediation of the contamination.

SEC. 1981. CONVEYANCE OF DIXIE NATIONAL FOREST LAND.

(a) DEFINITIONS.—In this section:

(1) COVERED FEDERAL LAND.—The term "covered Federal land" means the approximately 66.07 acres of land in the Dixie National Forest in the State, as depicted on the map.

(2) LANDOWNER.—The term "landowner" means Kirk R. Harrison, who owns land in Pinto Valley, Utah.

(3) MAP.—The term "map" means the map entitled "Conveyance of Dixie National Forest Land" and dated December 18, 2008.

(4) SECRETARY.—The term "Secretary" means the Secretary of Agriculture.

(b) CONVEYANCE.—

(1) IN GENERAL.—The Secretary may convey to the landowner all right, title, and interest of the United States in and to any of the covered Federal land (including any improvements or appurtenances to the covered Federal land) by sale or exchange.

(2) LEGAL DESCRIPTION.—The exact acreage and legal description of the covered Federal land to be conveyed under paragraph (1) shall be determined by surveys satisfactory to the Secretary.

(3) CONSIDERATION.—

(A) IN GENERAL.—As consideration for any conveyance by sale under paragraph (1), the landowner shall pay to the Secretary an amount equal to the fair market value of any Federal land conveyed, as determined under subparagraph (B).

(B) APPRAISAL.—The fair market value of any Federal land that is conveyed under paragraph (1) shall be determined by an appraisal acceptable to the Secretary that is performed in accordance with—

(i) the Uniform Appraisal Standards for Federal Land Acquisitions;

(ii) the Uniform Standards of Professional Appraisal Practice; and (iii) any other applicable law (including regulations).

(4) DISPOSITION AND USE OF PROCEEDS.—

(A) DISPOSITION OF PROCEEDS.—The Secretary shall deposit the proceeds of any sale of land under paragraph (1) in the fund established under Public Law 90–171 (commonly known as the "Sisk Act") (16 U.S.C. 484a).

(B) USE OF PROCEEDS.—Amounts deposited under subparagraph (A) shall be available to the Secretary, without further appropriation and until expended, for the acquisition of real property or interests in real property for inclusion in the Dixie National Forest in the State.

(5) ADDITIONAL TERMS AND CONDITIONS.—The Secretary may require any additional terms and conditions for any conveyance under paragraph (1) that the Secretary determines to be appropriate to protect the interests of the United States.

SEC. 1982. TRANSFER OF LAND INTO TRUST FOR SHIVWITS BAND OF PAIUTE INDIANS.

(a) DEFINITIONS.—In this section:

(1) PARCEL A.—The term "Parcel A" means the parcel that consists of approximately 640 acres of land that is—

(A) managed by the Bureau of Land Management;

(B) located in Washington County, Utah; and

(C) depicted on the map entitled "Washington County Growth and Conservation Act Map".

(2) SECRETARY.—The term "Secretary" means the Secretary of the Interior.

(3) TRIBE.—The term "Tribe" means the Shivwits Band of Paiute Indians of the State of Utah.

(b) PARCEL TO BE HELD IN TRUST.—

(1) IN GENERAL.—At the request of the Tribe, the Secretary shall take into trust for the benefit of the Tribe all right, title, and interest of the United States in and to Parcel A.

(2) SURVEY; LEGAL DESCRIPTION.—

(A) SURVEY.—Not later than 180 days after the date of enactment of this Act, the Secretary, acting through the Director of the Bureau of Land Management, shall complete a survey of Parcel A to establish the boundary of Parcel A.

(B) LEGAL DESCRIPTION OF PARCEL A.—

(i) IN GENERAL.—Upon the completion of the survey under subparagraph (A), the Secretary shall publish in the Federal Register a legal description of—

(I) the boundary line of Parcel A; and

(II) Parcel A.

(ii) TECHNICAL CORRECTIONS.—Before the date of publication of the legal descriptions un der clause (i), the Secretary may make minor corrections to correct technical and clerical errors in the legal descriptions.

(iii) EFFECT.—Effective beginning on the date of publication of the legal descriptions under clause (i), the legal descriptions shall be considered to be the official legal descriptions of Parcel A.

(3) EFFECT.—Nothing in this section—

(A) affects any valid right in existence on the date of enactment of this Act;

(B) enlarges, impairs, or otherwise affects any right or claim of the Tribe to any land or interest in land other than to Parcel A that is—

(i) based on an aboriginal or Indian title; and

(ii) in existence as of the date of enactment of this Act; or

(C) constitutes an express or implied reservation of water or a water right with respect to Parcel A.

(4) LAND TO BE MADE A PART OF THE RESERVATION.—Land taken into trust pursuant to this section shall be considered to be part of the reservation of the Tribe.

SEC. 1983. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such sums as are necessary to carry out this subtitle.

APPENDIX B

Planning Criteria

Planning criteria are the standards, rules, and guidelines that help to guide data collection and alternative formulation and selection in the development of new RMPs for the Beaver Dam Wash and Red Cliffs NCAs, and the focused Amendment to the St. George Field Office RMP. In conjunction with the planning issues, planning criteria ensure that the planning process is focused. The criteria also help guide the final plan selection and provide a basis for judging the responsiveness of the planning options.

The preliminary planning criteria were included in the Notice of Intent (Federal Register, May 10, 2010, Vol 75, No. 89, pages 25876-25877), with an invitation for the public to comment on those criteria.

Planning criteria for the NCA RMPs include the following:

- The RMPs for Beaver Dam Wash and Red Cliffs National Conservation Areas must ensure the BLM conserves, protects, and enhances those resources and resource uses identified as NCA purposes in OPLMA.
- The RMPs will recognize valid existing rights.
- No land use plan decisions will be made relative to lands administered by other entities and decisions made within the RMPs will not apply to private lands.
- The RMPs will be completed in compliance with OPLMA, Subtitle O, Section 1974 and 1975; FLPMA; NEPA; and all other applicable laws, regulations, Executive Orders, policies, and guidelines (including environmental laws and Executive Orders listed as supplemental authorities in Appendix 1 of H-1790–1).
- To the extent possible, decisions in the RMPs will be compatible with the existing plans and policies of adjacent local, Tribal, State, and Federal entities, as long as the decisions conform to Federal laws and regulations that direct resource management on BLM lands.
- Native American Tribal consultations will be conducted in accordance with BLM policy and Tribal concerns will be given consideration.
- Specific planning decisions will be established in the RMP for the Beaver Dam Wash NCA to protect, enhance, and interpret the values associated with the Congressionally-designated Old Spanish National Historic Trail. Decisions will be in conformance with the National Trails System Act, the National Historic Preservation Act, and consistent with policy identified in BLM Manual 6280.
- The Joshua Tree National Natural Landmark within the Beaver Dam Wash NCA will continue to be a valid administrative designation and will be carried forward in all alternatives for management of Beaver Dam Wash NCA.
- New wild and scenic river proposals will not be evaluated or analyzed in the NCA RMPs.
- Decisions in existing BLM land use and implementation-level plans, and other plans identified in OPLMA, Subtitle O, Section 1974 and 1975 for Red Cliffs NCA, will be considered during the process of developing the new RMP. Where existing decisions remain valid and responsive to the purposes of the designation, they may be carried forward.
- The RMPs will incorporate the Utah Standards for Rangeland Health and Guidelines for Livestock Grazing Management (1997) and will lay out a strategy for ensuring that proper grazing practices are followed, where applicable. Grazing will be managed to maintain or improve the health of the BLM lands to enhance resource conditions.
- The RMPs will address management of livestock grazing permits, in accordance with OPLMA, other applicable laws, rules, regulations, policies, and guidelines.
- The RMPs will provide management direction for wildlife habitat on BLM-administered public lands while recognizing the Utah Division of Wildlife Resources' responsibility to manage wildlife populations. The BLM will consult with UDWR in establishing policy for the purposes of ensuring public safety and land health, as well as public use and enjoyment.

- Lands within the two NCAs will be inventoried for visual resource and assigned a Visual Resource Management (VRM) class ranging from Class I to Class IV. These VRM classes will serve as guidance to ensure that future management activities are designed to meet the assigned classes.
- Area designations (open, closed, or limited use) for motorized recreation will be consistent with the Congressionally-mandated Uses of the Beaver Dam Wash NCA (OPLMA, Section 1975 9(e) (1) and (3) related to motorized vehicles and the BLM Travel and Transportation Management guidance.
- Planning and management direction will be focused on the relative values of resources as guided by OPLMA and not the combination of uses that will give the greatest economic return or economic output.
- The BLM will use best available scientific information, research, technologies, and results of inventory, monitoring, and coordination to determine appropriate local and regional management strategies that will enhance or restore impaired systems.
- The planning process will include an analysis of the potential impacts associated with the proposed management alternatives, and an Environmental Impact Statement (EIS) will be completed alongside the development of the RMP (43 CFR 1610 and 40 CFR 1500).
- Public participation will be encouraged throughout the process. The BLM will collaborate and build relationships with tribes, State and local governments, Federal agencies, local stakeholders, and others in the community. Collaborators are regularly informed and offered timely and meaningful opportunities to participate in the planning process.

Planning Criteria for the Amendment to the St. George Field Office RMP

- The Amendment will comply with Congressional mandate from OPLMA, Subtitle O, Section 1974 and 1975 to identify areas in Washington County where biological conservation is a priority and undertake activities to conserve and restore plant and animal species and natural communities within such areas. The planning effort will evaluate the need for Special Designation Areas or other management determinations and will provide an opportunity for the submission of nominations for additional ACECs and reevaluation of existing ACEC designations related to biological conservation.
- Area designations (open, closed, or limited use) for motorized recreation will be consistent with the BLM Travel and Transportation Management guidance. The designated OHV "open" area of the Sand Mountain Special Recreation Management Area will remain open under all alternatives of the plan amendment, consistent with the agreement for joint management by the State of Utah's Sand Hollow Reservoir State Park.
- The BLM will use best available scientific information, research, technologies, and results of inventory, monitoring, and coordination to determine appropriate local and regional management strategies that will enhance or restore impaired systems.

APPENDIX C

Laws, Regulations, and Policy

In addition to the Omnibus Act and all applicable laws, rules, regulations, policies, and guidelines, the following specifically guide management on Federal lands and will guide and influence the development of management actions through the RMP process (note that this is not an all-inclusive list).

- The American Indian Religious Freedom Act (1978) (PL 95-341) - This Act requires Federal land managers to include consultation with traditional Native American or Alaska Native religious leaders in their land and resource management plans.
- The Archaeological Resources Protection Act (1979) as amended (16 USC 470a, 470cc and 470ee) - This Act requires permits for the excavation or removal of federally administered archeological resources, encourages increased cooperation among Federal agencies and private individuals, and provides stringent criminal and civil penalties for violations. It also requires Federal agencies to identify important resources vulnerable to looting, and to develop a tracking system for violations.
- The Bald Eagle Protection Act (1940) (16 USC 668-668d, 54 Stat. 250) - This Act prohibits the taking or possession of, and commerce in, bald and golden eagles, with limited exceptions.
- BLM Manual 4180 and Manual H-4180-1 (Land Health and Rangeland Health Standards) - The purpose of this Manual and Handbook is to set forth the authorities, roles and responsibilities, and policies for developing and implementing land health standards on the National System of Public Lands in order to ensure sustainable public land health. Land health standards describe the minimum requirements for land health and are used to develop objectives in land use plans (H-16011).
- BLM Manual 1601 and Handbook H-1601-1 (Land Use Planning) - The purpose of this Manual and Handbook is to provide further guidance to BLM personnel on the requirements of Sec. 201 and 202 of the FLPMA, the BLM's Planning Regulations (43 CFR 1600), and the NEPA. This Manual is designed to help ensure that the public lands are managed in accordance with FLPMA (43 USC 1701 et seq.) and other applicable laws, rules, regulations, policies, and guidelines, under the principles of multiple use and sustained yield; in a manner that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber; and in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water, and archaeological values.
- BLM Manual 1790 and Handbook H-1790-1 (NEPA Handbook) - The purpose of this Manual and Handbook are to help BLM personnel comply with the NEPA and the Council on Environmental Quality's (CEQ) NEPA regulations (40 CFR Parts 1500–1508).
- BLM Manual 6100 (National Landscape Conservation System Management) - This manual provides general policy to the BLM on managing public lands in the National Landscape Conservation System (NLCS), which includes National Monuments, National Conservation Areas, Wilderness, Wilderness Study Areas, Wild and Scenic Rivers, and National Scenic and Historic Trails.
- BLM Manual 6220 (National Monuments, National Conservation Areas, and Similar Designations) - This manual provides guidance to BLM personnel on managing and planning for BLM-administered National Monuments, National Conservation Areas, and similar designations.
- BLM Manual 6320 (Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process) - This Manual establishes guidance to the BLM regarding planning for areas that have inventoried wilderness characteristics. This does not apply to lands already designated as Wilderness by Congress or to Wilderness Study Areas.
- BLM Manual 6280 (Management of National Scenic and Historic Trails Under Study or Recommended as Suitable for Congressional Designation) - This Manual provide guidance on the management of National Scenic and Historic Trails. Within the Beaver Dam Wash NCA, this pertains to management of the Old Spanish National Historic Trail.
- BLM Manual 6340 (Management of Designated Wilderness Areas) - This Manual provides the BLM policy and program direction for the management of wilderness areas under the authority of the 1964 Wilderness Act.

- BLM Manual 6840 (Special Status Species Management) - The purpose of this Manual is to provide policy and guidance for the conservation of BLM special status species and the ecosystems upon which they depend on BLM-administered lands. BLM special status species are: (1) species listed or proposed for listing under the Endangered Species Act (ESA), and (2) species requiring special management consideration to promote their conservation and reduce the likelihood and need for future listing under the ESA, which are designated as Bureau sensitive by the State Director(s). All Federal candidate species, proposed species, and delisted species in the 5 years following delisting will be conserved as Bureau sensitive species.
- BLM Manual 8100 (The Foundations for Managing Cultural Resources) - This Manual Section is intended as a reference source to provide BLM managers with basic information and general summary guidance for managing cultural resources.
- BLM Manual 8120 (Tribal Consultation Under Cultural Resources) - This Manual provides basic policy direction on the BLM's consultation responsibilities under cultural resource-related laws and executive orders, regarding cultural, historical, and religious concerns of American Indians and Alaska Natives ("Tribes"). Its purpose is to clarify legal relationships between the BLM and Tribes relative to such concerns.
- BLM Manual 8140 (Protecting Cultural Resources) - This Manual provides general guidance for protecting cultural resources from natural or human-caused deterioration; for making decisions about recovering significant cultural resource data when it is impossible or impractical to maintain cultural resources in a non-deteriorating condition; for protecting cultural resources from inadvertent adverse effects associated with BLM land use decisions, pursuant to the NHPA, the NEPA, EO 11593, and the national Programmatic Agreement; and for controlling unauthorized uses of cultural resources.
- BLM Manual 8561 (Wilderness Management Plans) - This Manual provides policy direction on writing wilderness management plans for wilderness areas.
- The Carlson-Foley Act (1968) (42 USC 1241-1243) - This Act provides for the control of noxious plants on lands under the jurisdiction of the Federal Government by permitting the appropriate State agency to enter such lands to destroy noxious plants.
- The Clean Air Act (1990) (42 USC 7401, 7642) - The United States Congress passed the Clean Air Act in 1963, the Air Quality Act in 1967, the Clean Air Act Extension of 1970, and Clean Air Act Amendments in 1977 and 1990. The 1963 Clean Air Act relies on States to issue and enforce regulations regarding air pollution. Congress amended the Clean Air Act in 1970 and established the Environmental Protection Agency (EPA) to set and enforce national standards for air pollution. In 1990, the EPA was authorized to set National Ambient Air Quality Standards (NAAQS), which establish acceptable concentrations of six criteria pollutants: ozone (O3), carbon monoxide (CO), sulfur dioxide (SO2), lead (Pb), nitrogen dioxide (NO2), and particulate matter (PM2.5).
- The Clean Water Act (1987) (33 USC 1251) as amended - This Act establishes objectives to restore and maintain the chemical, physical, and biological integrity of the nation's water. The Act also requires permits for point-source discharges to navigable waters of the United States. It provides for the protection of wetlands, and includes monitoring and research provisions for protection of ambient water quality. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.
- The Endangered Species Act (1973) as amended (16 USC 1531 et seq.) - This Act directs Federal agencies to ensure that their actions do not jeopardize threatened and endangered species, and that through their authority they help bring about the recovery of such species.
- Executive Order 11593, Protection and Enhancement of the Cultural Environment - This EO directs Federal agencies to locate, inventory, nominate, and protect federally owned cultural resources eligible for the NRHP, and to ensure that their plans and programs contribute to the preservation and enhancement of non-federally owned resources.
- Executive Order 11988, Floodplain Management - This EO provides for the restoration and preservation of national and beneficial floodplain values, and for the enhancement of the natural and beneficial values of wetlands in carrying out programs affecting land use.

- Executive Order 12898, Environmental Justice - This EO requires that Federal agencies address the environmental justice of their actions on minority populations and on low-income populations.
- Executive Order (EO) 13112, Invasive Species - This EO directs Federal agencies to prevent the introduction of invasive species and to provide for control of invasive vegetation. It also directs Federal agencies to minimize the economic, ecological, and human health impacts resulting from invasive vegetation on public lands.
- Executive Order 13175, Consultation and Coordination with Indian Tribal Governments - This EO directs Federal agencies to respect tribal self-government and sovereignty, tribal rights, and tribal responsibilities whenever they formulate policies that may "significantly or uniquely affect Indian tribal governments."
- Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds - This EO requires that Federal agencies that have, or are likely to have, a measurable adverse impact on migratory bird populations develop a Memorandum of Understanding (MOU) with the USFWS that shall promote the conservation of migratory bird populations.
- Executive Order 13307, Indian Sacred Sites - This EO directs Federal agencies that manage Federal lands to 1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and 2) avoid adversely affecting the physical integrity of such sacred sites.
- Executive Order 13443, Facilitation of Hunting Heritage and Wildlife Conservation - This EO directs the Department of the Interior and its component agencies, bureaus and offices "to facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitat."
- The Federal Land Policy and Management Act (1976) as amended (43 USC 1701 et seq.) - This Act established the land management authority of the BLM, and provides guidance for how public lands and related resource values are to be managed by the BLM. The BLM manages public lands based upon the principles of multiple use and sustained yield. It requires that the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values be protected. Section 202(a) requires the development and maintenance, and, as appropriate, the revision of land use plans.
- The Federal Noxious Weed Act (1974) as amended by Sec. 15, Management of Undesirable Plants on Federal Lands (1990) (7 USC 2814) - This Act requires that each Federal agency designate a lead office and person trained in the management of undesirable plants, establish and fund an undesirable plant management program, complete and implement cooperative agreements with State agencies, and establish integrated management systems in order to control undesirable plant species.
- The Fish and Wildlife Conservation Act (1980) as amended (16 USC 2901-2911) – This Act (commonly known as the Non-game Act) encourages States to develop conservation plans for non-game fish and wildlife of ecological, educational, aesthetic, cultural, recreational, economic, or scientific value. The States may be reimbursed for a percentage of the costs of developing, revising, or implementing conservation plans approved by the Secretary of the Interior. Amendments adopted in 1988 and 1989 also direct the Secretary to undertake certain activities to research and conserve migratory non-game birds.
- The Fish and Wildlife Coordination Act (1958) (16 USC 661-666) - This Act provides that, whenever the waters or channel of a body of water are modified by a department or agency of the United States, the department or agency will first consult with the USFWS, as well as with the head of the agency exercising administration over the wildlife resources of the State where construction will occur, with a view to the conservation of wildlife resources.
- The Fish and Wildlife Improvement Act (1978) (16 USC 742l; 92 Stat. 3110) - This Act authorizes the Secretary of the Interior and the Secretary of Commerce to assist in training of State fish and wildlife enforcement personnel, to cooperate with other Federal or State agencies for enforcement of fish and wildlife laws, and to use appropriations to pay for rewards and undercover operations.
- The Historic Sites Act (1935) (16 USC 461) - This Act provides for the preservation of historic American sites, buildings, objects, and antiquities of national significance, thereby providing a foundation for the National Register of Historic Places (NRHP).

- The Migratory Bird Treaty Act (1918) (16 USC 715) - This Act manages and protects migratory bird species through consultation with State and local governments. It also provides for the protection of land and water resources necessary for the conservation of migratory birds. Under the Act, taking, killing, or possessing migratory birds is unlawful.
- The National Environmental Policy Act (1969) (42 USC 4321 et seq.) - The National Environmental Policy Act (NEPA) established a national policy to maintain conditions under which people and nature can exist in productive harmony while fulfilling the social, economic, and other requirements of present and future generations of Americans. It established the Council on Environmental Quality (CEQ) in order to coordinate environmental matters at the Federal level, and to advise the President on such matters. Under the law, all Federal actions that could result in a significant impact on the environment are subject to review by Federal, State, local, and Native American Tribal environmental authorities, as well as by affected parties and interested citizens. The NEPA requires systematic, interdisciplinary planning to ensure the integrated use of natural and social sciences and environmental design arts in making decisions about major Federal actions that may have a significant effect (impact) on the environment.
- The National Historic Preservation Act (1966) as amended (16 USC 470) - The National Historic Preservation Act (NHPA) is the primary Federal law providing for the protection and preservation of cultural resources. The NHPA established the NRHP, the Advisory Council on Historic Preservation (ACHP), and the State Office of Historic Preservation (SHPO). This Act expands protection of historic and archeological properties to include those of national, State, and local significance. It also directs Federal agencies to consider the impacts of proposed actions on properties eligible for, or included in, the NHRP.
- The National Trails System Act (1968) as amended (16 USC 1241-1251) - This Act establishes a National System of Trails, prescribes methods and standards by which additional components may be added to the system; recognizes the valuable contributions of that volunteers and private, nonprofit trail groups have made to the development and maintenance of the Nations Trail; provides direction for the administration and development of National Trails; and establishes a management standard.
- The Native American Graves Protection and Repatriation Act (1990) (25 USC 3001) - This Act provides a process for Federal agencies to return certain Native American cultural items (such as human remains, funerary objects, sacred objects, and objects of cultural patrimony) to lineal descendants and culturally affiliated Native American Tribes.
- The Noxious Weed Control Act of 2004 (PL 108-412) - This Act establishes a program to provide assistance through States to eligible weed management entities to control or eradicate harmful, non-native weeds on public and private lands.
- The Public Rangelands Improvement Act (1978) (43 USC 1901-1908) - This Act requires the BLM to manage, maintain, and improve the condition of the public rangelands so that they become as productive as feasible.
- Soil and Water Resources Conservation Act (1977) (16 USC 2001 - 2009) - This Act provides for conservation, protection and enhancement of soil, water, and related resources.
- The Taylor Grazing Act of 1934 (43 USC 315) as amended by the Act of August 28, 1937 (43 USC 1181d) - This Act introduced Federal protection and management of public lands by regulating grazing on public lands.
- The Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic EIS (2007a) and the Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (PER) (2007b) - The PEIS analyzes the impacts of herbicide use on humans, plants, and animals, as well as other environmental and social resources associated with public lands.
- The Wilderness Act (1964) (16 USC 1131-36) - This Act provides management directions to protect Wilderness values and guides activities and permitted uses within these areas.
- The Federal Cave Resource Protection Act of 1988 (16 U.S.C. 4301) – This Act provides for the protection of caves on lands under the jurisdiction of the Secretary, and the Secretary of Agriculture. Establishes terms and conditions for use permits, and penalties for violations.

- The Land and Water Conservation Fund Act of 1965, as amended (16 U.S.C. 460 et seq.) – This Act provides for the establishment of the Land and Water Conservation Fund, special BLM accounts in the Treasury, the collection and disposition of recreation fees, the authorization for appropriation of recreation fee receipts, and other purposes. Authorizes planning, acquisition, and development of needed land and water areas and facilities.
- Secretarial Order 3289, Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources - This Order establishes a Department wide approach for applying scientific tools to increase understanding of climate change and to coordinate an effective response to its impacts on tribes and on the land, water, ocean, fish and wildlife, and cultural heritage resource s that the Department manages. The realities of climate change require us to change how we manage the land, water, fish and wildlife, and cultural heritage and tribal lands and resources we oversee. For example: Shifting wildlife and habitat populations may require investments in new wildlife corridors.

APPENDIX D

Utah Standards for Rangeland Health and Guidelines for Grazing Administration

The BLM has developed the following Fundamentals of Rangeland Health and their companion rules-Standards for Rangeland Health and Guidelines for Grazing Management for BLM in Utah ([BLM-UT-GI-97-001-4000] U.S. Department of Interior, Bureau of Land Management, Utah State Office 1997).

FUNDAMENTALS OF RANGELAND HEALTH

As provided by regulations, developed by the Secretary of the Interior on February 22, 1995, the following conditions must exist on BLM lands:

1. Watersheds are in, or making significant progress toward, properly functioning physical condition, including their upland, riparian –wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that are in balance with climate and landform and maintain or improve water quality, and timing and duration of flow.
2. Ecological processes, including the hydrologic cycle nutrient cycle, and energy flow, are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.
3. Water quality complies with State water quality standards and achieves, or is making significant progress towards achieving established BLM management objectives such as meeting wildlife needs.
4. Habitats; are, or are making significant progress toward being, restored or maintained for Federal threatened and endangered Species, Federal proposed, Category 1 and 2 Federal candidate and other special status Species.

In 1997, the BLM in Utah developed rules to carry out the Fundamentals of Rangeland health. These are called Standards for Rangeland health and Guidelines for grazing management.

Standards spell out conditions to be achieved on BLM Lands in Utah, and Guidelines describe practices that will be applied in order to achieve the Standards.

STANDARDS FOR RANGELAND HEALTH

Standard 1. Upland soils exhibit permeability and infiltration rates that sustain or improve site productivity, considering the soil type, climate, and landform.

As indicated by:

1. Sufficient cover and litter to protect the soil surface from excessive water and wind erosion; to promote infiltration; detain surface flow; and retard soil moisture loss by evaporation;
2. The absence of indicators of excessive erosion such as rills, soil pedestals, and actively eroding gullies;
3. The appropriate amount, type, and distribution of vegetation reflecting the presence of (1) the desired plant community IDPCI, where identified in a land-use plan, or (2) where the PVC is not identified, a community that equally sustains the desired level of productivity and properly functioning ecological conditions.

Standard 2. Riparian and wetland areas are in properly functioning condition. Stream channel morphology and functions are appropriate to soil type, climate, and landform.

As indicated by:

1. Stream bank vegetation consisting of or showing a trend toward species with root masses capable of withstanding high stream flow events. Vegetative cover adequate to protect stream banks and dissipate stream flow energy associated with high-water flows. Protect against accelerated erosion, capture sediment, and provide for groundwater recharge.
2. Vegetation reflecting: Desired Plant Community. Maintenance of riparian and wetland soil moisture characteristics, diverse age structure and composition, high vigor, large woody debris when site potential allows, and providing food, cover, and other habitat needs for dependent animal species.
3. Revegetating point bars: Lateral stream movement associated with natural sinuosity: channel width, depth, pool frequency, and roughness appropriate to landscape position.

4. Active floodplain.

Standard 3. Desired species, including native, threatened.

As indicated by:

1. Frequency, diversity, density, age classes, and productivity of desired native species necessary to ensure reproductive capability and survival.
2. Habitats connected at a level to enhance species survival.
3. Native species reoccupy habitat niches and voids caused by disturbances unless management objectives call for introduction or maintenance of nonnative species.
4. Appropriate amount, type, and distribution of vegetation reflecting the presence of (1) the Desired Plant Community DPC, where identified in a land use plan conforming to these Standards, or (2) where the DPC is identified a community that equally sustains the desired level of productivity and properly functioning ecologic processes.

Standard 4. BLM will apply and comply with water quality standards established by the State of Utah (R.317-2) and the federal Clean Water and Safe Drinking Water Acts. Activities on BLM lands will fully support the designated beneficial uses described in the Utah Water Quality Standards (R.317-2) for surface and groundwater.

As indicated by:

1. Measurement of nutrient loads, total dissolved solids, chemical constituents, fecal coliform, water temperature and other water quality parameters.
2. Macro-invertebrate communities that indicate water quality meets aquatic objectives.
3. Because BLM Lands provide forage for grazing of wildlife and domestic livestock, the following rules have been developed to assure that such grazing is consistent with the Standards listed here.
4. BLM will continue to coordinate monitoring water quality activities with other Federal, State and technical agencies.

GUIDELINES FOR GRAZING MANAGEMENT

Grazing management practices will be implemented that:

1. Maintain sufficient residual vegetation and litter on both upland and riparian sites to protect the soil from wind and water erosion and support ecological functions;
2. Promote attainment or maintenance of proper functioning condition riparian/wetland areas, appropriate stream channel morphology, desired soil permeability and permeability and infiltration, and appropriate soil conditions and kinds and amounts of plants and animals to support the hydrologic cycle, nutrient cycle, and energy flow.
3. Meet the physiological requirements of desired plants and facilitate reproduction and maintenance of desired plants to the extent natural conditions allow;
4. Maintain viable and diverse populations of plants and animals appropriate for the site,
5. Provide or improve within the limits of site potentials, habitat for Threatened or Endangered Species;
6. Avoid grazing management conflicts with other species that have the potential of becoming protected or special status species;
7. Encourage innovation, experimentation and the ultimate development of alternatives to improve rangeland management practices;
8. Give priority to rangeland improvement projects and land treatments that offer the best opportunity for achieving the Standards.

Any spring or seep developments will he designed and constructed to protect ecological process and functions and improve livestock, wild horse, and wildlife distribution.

New rangeland projects for grazing will be constructed in a manner consistent with the standards. Considering economic circumstances and site limitations, existing rangeland projects and facilities that conflict with the achievement or maintenance of the standards will be relocated and/or modified.

Livestock salt blocks and other nutritional supplements will be located away from riparian/wetland areas or other permanently located, or other natural water sources. It is recommended that the locations of these supplements be moved every year.

The use and perpetuation of native species will be emphasized. However, when restoring or rehabilitating disturbed or degraded rangelands nonintrusive, nonnative plant species are appropriate for use where native species (a) are not available, (b) are not economically feasible, (c) can not achieve ecological objectives as well as nonnative species, and/or (d) cannot compete with already established native species.

When rangeland manipulations are necessary, the best management practices, including biological processes, fire, and intensive grazing, will be utilized prior to the use of chemical or mechanical manipulations.

When establishing grazing practices and rangeland improvements, the quality of the outdoor recreation experience is to be considered. Aesthetic and scenic values, water, campsites, and opportunities for solitude are among those considerations.

Feeding of hay and other harvested forage (which does not refer to miscellaneous salt, protein, and other supplements) for the purpose of substituting for inadequate natural forage will not be conducted on BLM lands other than in (a) emergency situations where no other resource exists and animal survival is in jeopardy, or (b) situations where an authorized officer determines such a practice will assist in meeting a standard or attaining a management objective.

In order to eliminate, minimize, or limit the spread of noxious weeds, (a) only hay cubes, hay pellets, or certified weed-free hay will be fed on BLM lands, and (b) reasonable adjustments in grazing methods, methods of transport, and animal husbandry practices will be applied.

To avoid contamination of water sources and in advertent damage to non-target species, aerial application of pesticides will not be allowed within 100 feet of a riparian wetland area unless the product is registered for such use by the EPA.

On rangelands where a standard is not being met, and conditions are moving toward meeting the standard, grazing may be allowed to continue. On lands where a standard is not being met, conditions are not improving toward meeting the standard or other management objectives, and livestock grazing is deemed responsible, administrative action with regard to livestock will be taken by the authorized officer pursuant to CUR 4180.2(c).

Where it can he determined that more than one kind of grazing animal is responsible for failure to achieve a standard, and adjustments in management are required. Those adjustments will be made to each kind of animal, based on interagency cooperation as needed in proportion to their degree of responsibility.

Rangelands that have been burned, reseeded, or otherwise treated to alter vegetative composition will be closed to livestock grazing as follows: (1) burned rangelands, whether by wildfire or prescribed burning, will be ungrazed for a minimum of one complete growing season following the burn; and (2) rangelands that have been reseeded or otherwise chemically or mechanically treated will be ungrazed for a minimum of two complete growing seasons

Conversions in kind of livestock (such as from sheep to cattle) will be analyzed in light of rangeland health standards. Where such conversions are not adverse to achieving a standard, or they are not in conflict with BLM land-use plans, the conversion will be allowed.

APPENDIX E

Evaluation Report for Areas of Critical Environmental Concern

EVALUATION REPORT FOR AREAS OF CRITICAL ENVIRONMENTAL CONCERN IN THE ST.GEORGE FIELD OFFICE, BEAVER DAM WASH NATIONAL CONSERVATION AREA, AND THE RED CLIFFS NATIONAL CONSERVATION AREA

1.0 INTRODUCTION

In the Notice of Intent published in the Federal Register on May 10th, 2010 announcing the start of this planning process it stated "the plan amendment will also consider nominations for Areas of Critical Environmental Concern (ACECs) on public lands in Washington County "where biological conservation is a priority," pursuant to section 1979 of the Omnibus Public Land Management Act of 2009 (OPLMA). While new ACECs could be designated in the NCAs, through the new RMPs, the SGFO RMP must be amended to make similar designations for public lands outside of the NCAs.

The St. George Field Office Resource Management Plan, approved in 1999, is being amended to consider the designation of additional Areas of Critical Environmental Concern (ACECs) for the conservation of biological resources and natural communities. The public was invited to provide information about at risk species and areas where conservation could be a priority and to nominate these areas for consideration as ACECs. Due to the specific direction in OPLMA to preserve areas "where biological conservation is a priority", this ACEC process only considers new ACECs that have a biological component or value. Areas nominated for scenic and cultural values were not considered at this time, but will be considered when the St. George Field Office Resource Management Plan is revised in the future. In brief, BLM staff evaluated 41 nominations for ACECs, totaling 726,023 acres within the St. George Field Office decision areas. Of these, 28 areas totaling 76,834 acres met the criteria for relevant and important values, resources, natural systems or processes, or hazards/safety/public welfare (all of which are referred to collectively as values in this report) and were identified as potential ACECs. Because many areas were nominated by more than one group or individual, a further refinement of the potential ACECs was necessary. The 28 areas that met relevance and importance were combined into 14 potential ACECs totaling 14,245 acres that will be considered further in the Plan Amendment.

1.1 Federal Land Policy Management Act

> In the development and revision of land use plans, the Secretary shall…give priority to the designation and protection of areas of critical environmental concern. —Federal Land Policy and Management Act (FLPMA), Title II, Sec 202(c) 3
>
> The term "areas of critical environmental concern" (often referred as "ACECs") means areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards. —FLPMA, Title I, Sec 103(a)

1.2 The Policy: BLM Manual 1613

BLM Manual 1613 provides direction for identifying, analyzing, designating, monitoring, and managing ACECs. Key points are as follows:

- The ACEC designation indicates to the public that the BLM recognizes that an area has significant values and has established special management measures to protect those values.
- Designation of ACECs is only done through the resource management planning process, either in a new RMP, a plan revision, or in a plan amendment.
- To be designated as an ACEC, an area must require special management attention to protect the importance and relevance values.
- Potential ACECs are identified as early as possible in the planning process.
- Existing ACECs are subject to reconsideration when plans are revised.

- Members of the public or other agencies may nominate an area for consideration as a potential ACEC. BLM personnel are encouraged to recommend areas for consideration as ACECs.
- No formal or special procedures are associated with nomination.
- An interdisciplinary team evaluates each resource or hazard to determine if it meets the relevance and importance criteria. The field manager approves the relevance and importance criteria.
- If an area is found not to meet the relevance and importance criteria, the analysis supporting that conclusion must be included in the RMP and associated environmental impact statement (EIS).

2.0 SUMMARY OF THE EVALUATION PROCESS

2.1 ACEC Nominations

Thirty-four ACEC nominations were received from the public during scoping and an additional 7 ACECs were recommended by the St. George Field Office (See Nominated ACEC Map, page 9), for a total of 41 nominated ACECs. Of the Thirty-four external nominations, 5 intersected with the Beaver Dam Wash NCA and 6 intersected with Red Cliffs NCA (for a discussion of nominations within the NCA's see the section below, Potential ACECs within the National Conservation Areas). External nominations were submitted by Citizens for Dixie's Future (CFDF), J.E. Deacon (University of Nevada, Las Vegas), Southern Utah Wilderness Alliance (SUWA), Utah Native Plant Society (UNPS), U.S. Fish and Wildlife Service (USFWS), Virgin River Land Preservation Association (VRLPA), Grand Canyon - Wildlands Council - The Wilderness Society (WS), and Western Watersheds Project (WWP). Nominations were evaluated in accordance with *BLM Manual 1613, Areas of Critical Environmental Concern*. Evaluated values meeting the relevance and importance criteria were carried forward into the potential ACECs.

Table E-1 Nominated ACECs

Nominated Area	Acres
CFDF Virgin River	2,198
CFDF Zion Scenic Corridor	33,894
CFDF Gunlock-Square Top	35,365
CFDF Moody Wash	14,974
CFDF Upper Santa Clara River	1,923
J.E. Deacon Upper Virgin River	1,400
SUWA Beaver Dam Mountains	19,019
SUWA Greater Beaver Dam Slope	88,810
SUWA Lower LaVerkin Creek	8,539
SUWA North Creek	5,766
SUWA Santa Clara/Gunlock Expansion	5,800
SUWA Upper Beaver Dam Wash	65,837
UNPS Dwarf Bear-poppy West	2,461
UNPS Holmgren Milkvetch	2,330
UNPS Little Round Valley	366
USFWS Beaver Dam Slope Expansion	68,788
USFWS East Fork Beaver Dam Wash	887
USFWS Harrisburg Bench	394
USFWS LaVerkin Creek	1,780
USFWS Lower Virgin River Expansion	3,077
USFWS Red Bluff Expansion	8,337
USFWS Sand Mountain	5,612
USFWS Shinob Kibe	114
USFWS Webb Hill	579
USFWS Zion Park/BLM Boundary	14
VRLP Dry Creek	20,113
VRLP Virgin River and Tributaries	19,186
VRLP Webb Hill	579
WS Beaver Dam	132,433
WS Black Ridge	45,557
WS Pine Valley	21,925
WWP Beaver Dam Slope Expansion	73,925
WWP Red Cliffs	30,241
WWP Zion Gateway	83
SGFO Virgin River Mosquito Cove	338
SGFO Virgin River Grafton	72
SGFO Santa Clara River Baker	116
SGFO Santa Clara River Veyo	399
SGFO Shinob Kibe	498
SGFO Moody Wash	116
SGFO Hurricane Cliffs	2,178
Total	**726,023**[1]

[1] Not the actual surface acreage due to the overlap in acreage for nominated ACECs.

2.2 Potential ACECs

Following the evaluation of relevance and importance values, 28 areas totaling 76,834 acres were identified as potential ACECs. Because many areas were nominated by more than one group or individual, a further refinement of the potential ACEC's was necessary. The 28 areas that met relevance and importance were combined into 14 potential ACEC's totaling 14,245 acres that will be considered further in the planning process (See Potential ACEC map, page 10). Potential ACECs were determined in two ways:

- The potential ACEC may be smaller than the nominated ACEC because the values determined relevant and important are found in only parts of the nominated area.
- Several areas were submitted by more than one nominator, these areas were combined into one or more potential ACECs.

Table E-2 Potential ACECs before Consolidation

Potential ACEC Name	Acreage
CFDF Virgin River	317
CFDF Zion Scenic Corridor	300
CFDF Moody Wash	24
CFDF Upper Santa Clara River	47
J.E. Deacon Upper Virgin River	1,400
SUWA Greater Beaver Dam Slope	9,363
SUWA North Creek	63
UNPS Dwarf Bear-poppy West	1,587
UNPS Holmgren Milkvetch	1,634
UNPS Little Round Valley	312
USFWS Beaver Dam Slope Expansion	9,648
USFWS Harrisburg Bench	109
USFWS Lower Virgin River Expansion	1,261
USFWS Red Bluff Expansion	1,949
USFWS Shinob Kibe	70
USFWS Webb Hill	518
USFWS Zion Park/BLM Boundary	14
VRLP Virgin River and Tributaries	450
VRLP Webb Hill	518
WS Beaver Dam	9,423
WWP Beaver Dam Slope Expansion	8,888
WWP Red Cliffs	28,602
SGFO Virgin River Mosquito Cove	87
SGFO Virgin River Grafton	45
SGFO Santa Clara River Baker	32
SGFO Santa Clara River Veyo	16
SGFO Shinob Kibe	134
SGFO Moody Wash	24
Total	**76,834**[1]

[1] Not the actual surface acreage due to overlaps in acreage for nominated ACECs.

2.3 Potential ACECs within the National Conservation Area

Nominations were received for areas within the Beaver Dam Wash NCA and Red Cliffs NCA specifically to protect the threatened species Desert Tortoise. These nominations were reviewed and evaluated by BLM, but not carried forward for analysis in the Draft RMPs for the two NCAs for the following reasons. The purpose of ACEC designation is to direct special management attention, through land use restrictions and management prescriptions, to ensure that the relevance and importance values of each ACEC are protected. Congressional designation of the NCAs for "conservation, protection, and enhancement" and the segregations made through OPLMA on activities and land uses that can be authorized in the NCAs, provides a high level of protection for all resource values of the public lands. Additionally, specific direction for the Red Cliffs NCA was given in OPLMA at sec 1974(a)2 "to protect each species that is - (A) located in the National Conservation Area; and (B) listed as a threatened or endangered species on the list of threatened species or the list of endangered species published under section 4(c)(1) of the Endangered Species Act of 1973 (16 U.S.C. 1533(c)(1))". The administrative designation of ACECs within the NCAs would be duplicative and provide no higher standard of resource management or protection than that afforded by OPLMA. According to BLM policy: "If, however, the management attention provided under the Congressional designation is adequate to protect a resource or value, it is not necessary or appropriate to designate it as an ACEC" (BLM Manual 1613.51). For these reasons, designating new ACECs in the two NCAs was not carried forward as a planning issue during the development of the Draft RMPs/Draft EIS.

Table E-3 Potential ACECs after Consolidation

Potential ACEC Name	Acreage	Nominated Areas included
Dalton Wash	14	USFWS Zion Park/BLM Boundary
Grafton	47	CFDF Virgin River
		CFDF Zion Scenic Corridor
		VRLP Virgin River and Tributaries
		SGFO Virgin River Grafton
Harrisburg Bench	111	USFWS Harrisburg Bench
Moody Wash	24	CFDF Moody Wash
		SGFO Moody Wash
Mosquito Cove	88	CFDF Virgin River
		CFDF Zion Scenic Corridor
		VRLP Virgin River and Tributaries
		SGFO Virgin River Mosquito Cove
North Creek	54	CFDF Zion Scenic Corridor
		SUWA North Creek
		VRLP Virgin River and Tributaries
Santa Clara River Baker	32	CFDF Upper Santa Clara River
		SGFO Santa Clara River Baker
Santa Clara River Veyo	16	CFDF Upper Santa Clara River
		SGFO Santa Clara River Veyo
Scarecrow Peak	9,665	SUWA Greater Beaver Dam Slope
		USFWS Beaver Dam Slope Expansion
		WS Beaver Dam
		WWP Beaver Dam Slope Expansion
Shinob Kibe	70	CFDF Virgin River
		USFWS Shinob Kibe
		VRLP Virgin River and Tributaries
		SGFO Shinob Kibe
South Hills	1,950	UNPS Dwarf Bear-Poppy West
		UNPS Holmgren Milkvetch
		USFWS Red Bluff Expansion
State Line	1,410	CFDF Virgin River
		UNPS Holmgren Milkvetch
		UNPS Little Round Valley
		USFWS Lower Virgin River Expansion
		VRLP Virgin River and Tributaries
Virgin River	245	CFDF Virgin River
		CFDF Zion Scenic Corridor
		VRLP Virgin River and Tributaries
Webb Hill	520	USFWS Webb Hill
		VRLP Webb Hill
Total	**14,245**	

2.4 Existing ACECs

Ten ACECs, totaling approximately 153,000 acres, were administratively designated on public lands in Washington County in 1999, through St. George Field Office Record of Decision and Resource Management Plan (refer to Map 3-69). See Chapter 2 (Tables 2-27, 2-61, and 2-70) for more information on these ACECs.

Table E-4 Existing ACECs

Existing ACEC Name	Acres
Red Bluff	6,168
Warner Ridge/Fort Pearce	4,281
Santa Clara/Gunlock	1,998
Santa Clara/Land Hill	1,645
Lower Virgin River	1,822
Little Creek Mountain	19,302
Canaan Mountain	31,355
Red Mountain	4,854
Beaver Dam Slope	48,519
Upper Beaver Dam Wash	33,063
Total	**153,007**

3.0 RELEVANCE AND IMPORTANCE CRITERIA

The task of evaluating the ACEC nominations was done by a BLM Interdisciplinary Team (ID Team comprised of resource professionals (e.g., specialists in biology, botany, geology, archeology, etc.) who are familiar with the resource values and land uses of the two NCAs and the St. George Field Office. The ID Team met on a regular basis to:-

- ► Identify the potentially relevant biological values and natural processes of the nominated ACECs and evaluate which,if any met the relevance and importance criteria;
- ► Identify special management attention, if any, need to protect and manage relevant and important values.

3.1 Identifying Potentially Relevant Values

The team reviewed each of the 41 ACEC nominations to identify potentially relevant values. Only biological values and only values identified in the nominations were evaluated for relevance.

3.1.1 Fish and Wildlife Resources

A fish and wildlife resource was determined relevant if it was:

- ► habitat for federally listed, or BLM Sensitive (Sensitive) wildlife species, or habitat essential for maintaining wildlife species diversity;
- ► documented as present within the nominated area;
- ► documentation included BLM, USFWS, or UDWR habitat maps; recovery plans; or other references.

3.1.2 Natural Processes or Systems

Nominated natural processes or systems (e.g., plants, riparian areas, and geologic processes) were considered relevant if they were present within the nominated area and included the following:

- ► habitat for federally listed, or BLM Sensitive (Sensitive) plant species, or rare, endemic or relict terrestrial, aquatic or riparian plants or plant communities;
- ► documented as present within the nominated area;
- ► documentation included BLM, USFWS, or UDWR habitat maps; recovery plans; or other references.

3.2 Determining Importance

Only values determined relevant were evaluated for importance. Generally, the value, resource, system, or process described as relevant had to have substantial significance and values to meet the importance criteria.

3.2.1 Significance Qualities

For a relevant resource (or value, system, process, or hazard) to be judged important, it had to have more than locally significant qualities that gave it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared with any similar resource.

Fish, Wildlife, and Plant Resources: A relevant fish, wildlife, or plant resource was determined more than locally significant if it was a species protected under federal law, regulation or BLM national policy that mandate the consideration and protection of species:

- Special status species, including—federally listed threatened or endangered species, BLM-sensitive species, State of Utah species of concern;
- Endemic to nominated area.

Riparian Resources: Riparian areas were deemed important according to Utah BLM riparian policy found in IM UT 2005-091.

3.2.2 Special Values and Threats

The relevant resource (value, system, or process) was important if it had qualities or circumstances in the nominated area that made it—

- Fragile;
- Sensitive;
- Rare;
- Irreplaceable;
- Exemplary;
- Unique;
- Endangered;
- Threatened;
- Vulnerable to adverse change.

Determinations of special values, threats, and vulnerability to adverse change were made by staff specialists and the interdisciplinary team.

3.2.3 National Priority

The relevant resource (or value, system, or process) was determined important if it warranted special protection:

- Satisfy national priority concerns;
- Carry out the mandates of FLMPA.

Fish, Wildlife, and Plants: A relevant federally listed threatened or endangered species was also determined important (because of the Endangered Species Act).

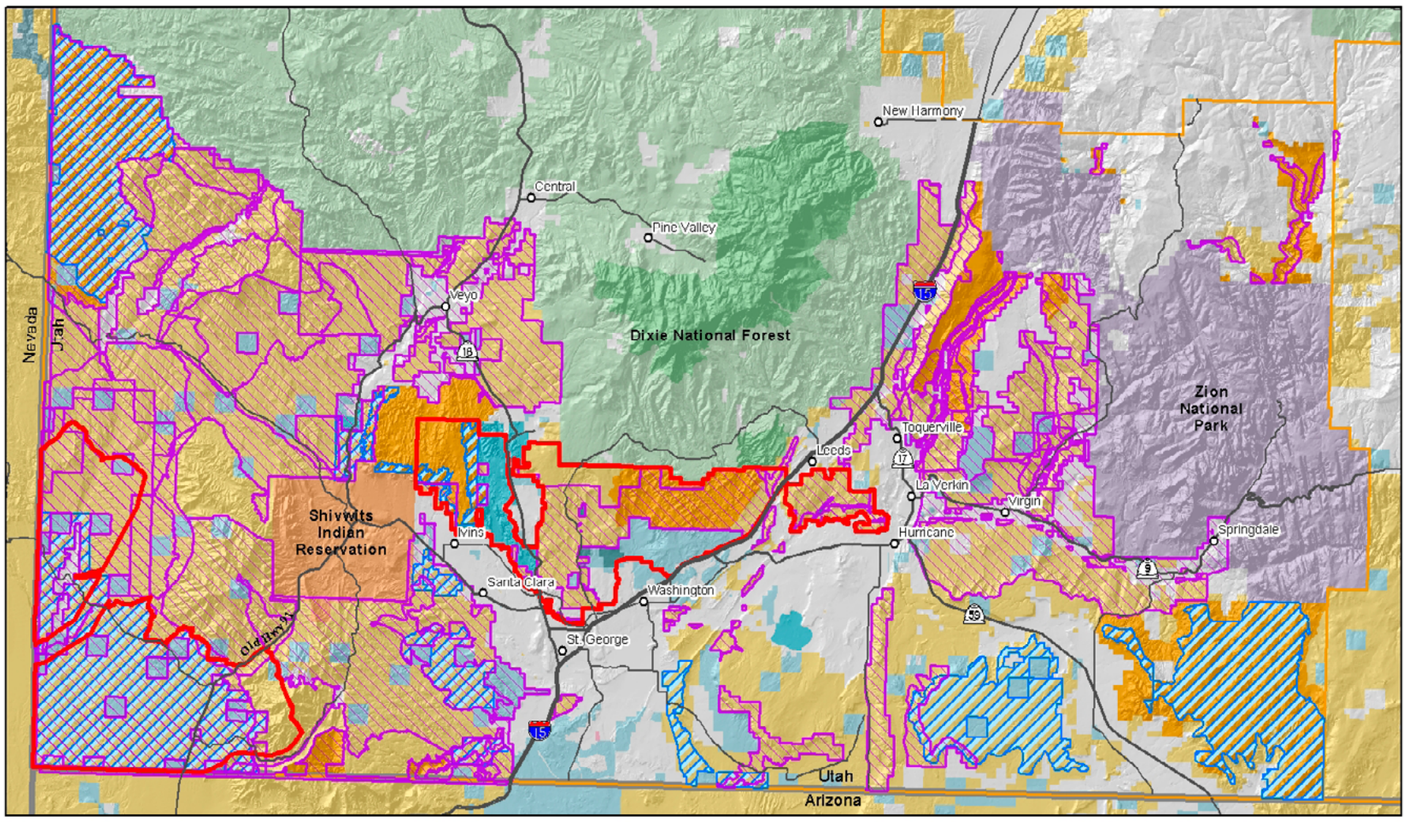
Riparian Resources: Riparian areas were deemed important according to Utah BLM riparian policy found IM UT 2005-091.

3.3 Special Management

During the alternatives process, special management was developed to address, mitigate, or prevent identified threats.

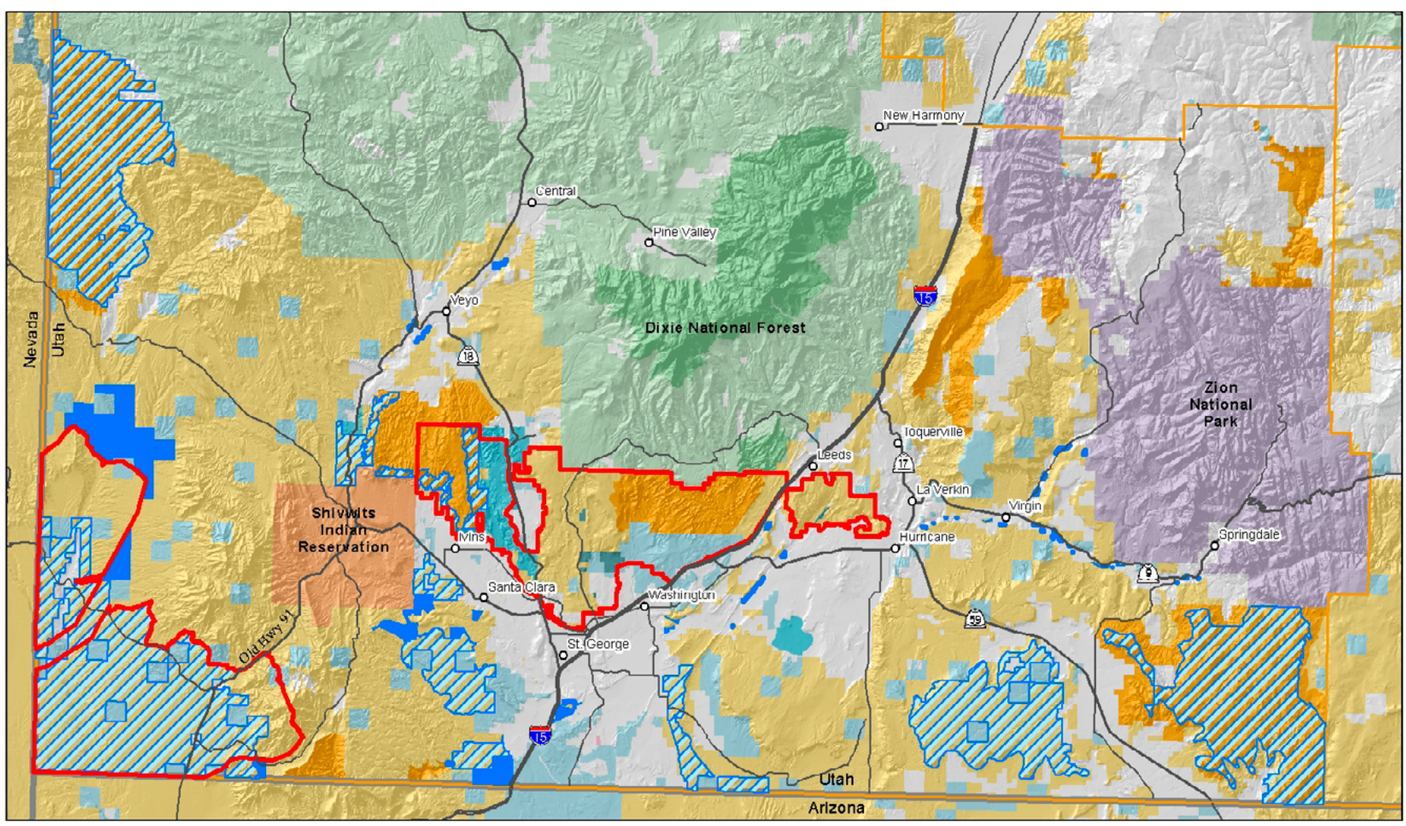
3.4 Mapping Potential ACECs

Values identified as having relevance and importance provided a basis for the potential ACECs. In many cases, the BLM interdisciplinary team determined that the boundary of the potential area was smaller than the nominated area. The potential ACECs will be carried into one or more alternatives of the Draft RMP Amendment/Draft EIS.



Nominated ACECs - SGFO

- Nominated ACEC
- Existing ACEC
- NCA Boundaries
- Field Office Boundary
- State Boundary
- Bureau of Land Management (BLM)
- BLM Wilderness Area
- US Forest Service (USFS)
- USFS Wilderness Area
- National Park Service (NPS)
- Indian Reservation (IR)
- Military Reservations and Corps of Engineers
- State
- State Parks and Recreation
- State Wildlife Reserve/Management Area
- Private



Existing and Potential ACECs - SGFO

- Potential ACEC
- Existing ACEC
- NCA Boundaries
- Field Office Boundary
- State Boundary
- Bureau of Land Management (BLM)
- BLM Wilderness Area
- US Forest Service (USFS)
- USFS Wilderness Area
- National Park Service (NPS)
- Indian Reservation (IR)
- Military Reservations and Corps of Engineers
- State
- State Parks and Recreation
- State Wildlife Reserve/Management Area
- Private

4.0 EVALUATIONS OF ACEC NOMINATIONS

4.1 Dalton Wash

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: Dalton Wash

Location of Potential ACEC: East of North Creek, adjacent to the Zion National Park Boundary

Nominations included in the Potential ACEC: CFDF Zion Scenic Corridor, USFWS Zion Park/BLM Boundary

Acreage: 14 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on designated critical habitat (USFWS 2006b) for declining populations of Shivwits milkvetch (Federally Endangered Species) (USFWS 2001b, USFWS 2006a).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of the endangered species, Shivwits milkvetch.

Shivwits Milkvetch (*Astragalus ampullarioides*) was listed federally endangered on September 28, 2001(USFWS 2001b) and presently occurs only in Washington County, Utah. Critical Habitat for Shivwits milkvetch was designated on December 27, 2006 (USFWS 2006b), and a recovery plan was developed for the Shivwits milkvetch in 2006 (USFWS 2006a). The Shivwits Milkvetch Recovery Plan identified five populations across its range. Since 2006, two additional populations (Dalton Wash and Cole Springs populations) were discovered in 2010 (USFWS 2010d).

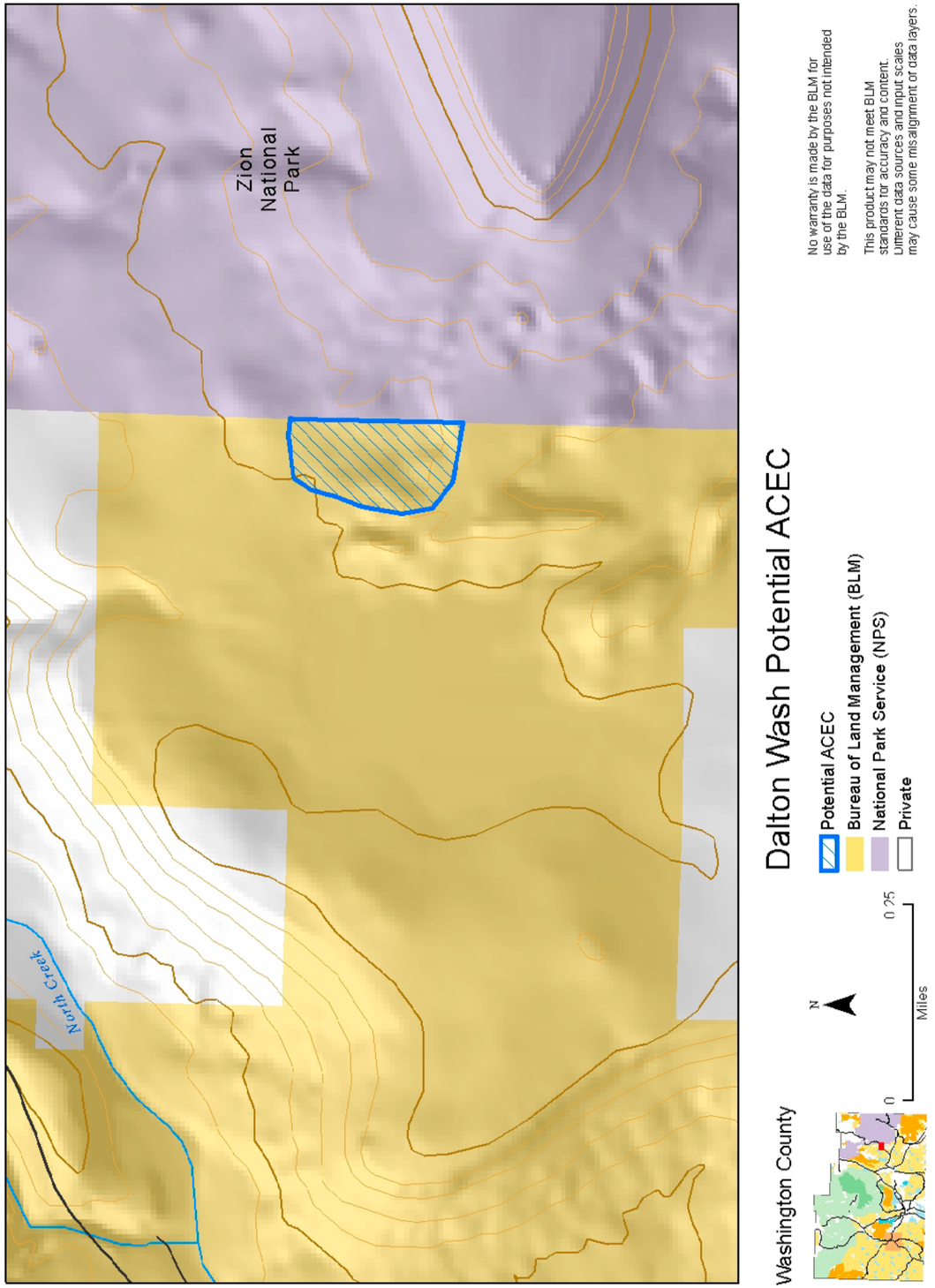
References:

USFWS, 2001b, United States Fish and Wildlife Service (USFWS), 2001. Final Rule to List the Holmgren Milkvetch and the Shivwits Milkvetch. 66 Federal Register 49560 49567, September 28, 2001.

USFWS, 2006a, United States Fish and Wildlife Service (USFWS), 2006. Recovery Plan for the Holmgren Milkvetch and Shivwits Milkvetch, September 2006.

USFWS, 2006b, United States Fish and Wildlife Service (USFWS), 2006. Final Designation of Critical Habitat for Holmgren Milkvetch and Shivwits Milkvetch. 71 Federal Register 77971 78012, December 27, 2006.

USFWS, 2010d, United States Fish and Wildlife Service (USFWS), 2010. Unpublished Surveys of Shivwits Milkvetch on BLM and Zion National Parks lands, April 23, 2010.



4.2 Grafton

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: Grafton

Location of Potential ACEC: Virgin River, west of the town of Rockville, UT

Nominations included in the Potential ACEC: CFDF Virgin River, CFDF Zion Scenic Corridor, VRLPA Virgin River and Tributaries, SGFO Virgin River Grafton

Acreage: 47 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: Bald Eagle (BLM Sensitive Species) (BLM 2011b), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b), Desert Sucker (Addley and Hardy 1993) (BLM 2011b, UDNR 2002, and UDWR 2010a), Flannelmouth Sucker (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2004, and UDWR 2010a), Virgin Spinedace (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2002, UDWR 2010a), and riparian values.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of BLM sensitive species: Desert Sucker, Flannelmouth Sucker, Virgin Spinedace, and riparian values.

The Desert Sucker (*Catostomus clarkia)*, is native to parts of the Colorado River system of the southwestern United States and northern Mexico. In Utah, the species occurs only in the Virgin River system in the southwestern corner of the state. Desert suckers are benthic (bottom dwelling) fish that primarily eat algae, although insects and other invertebrates are also occasionally consumed. Members of the species almost always occur in streams, where spawning occurs in riffles during the winter and spring (UDWR 2010b).

The Flannelmouth Sucker, (*Catostomus latipinnis*), is native to the Colorado River system of the western United States and northern Mexico. In Utah, the species occurs in the main-stem Colorado River, as well as in many of the Colorado River's large tributaries (Virgin River, and tributaries here in Washington County). Flannelmouth suckers are usually absent from impoundments. In recent times, Utah Flannelmouth sucker populations have been reduced

in both numbers and distribution, primarily due to flow alteration, habitat loss/alteration, and the introduction of nonnative fishes. Flannelmouth suckers are benthic (bottom dwelling) fish that primarily eat algae, although invertebrates and many types of plant matter are also consumed. The species spawns in streams over gravelly areas during the spring and early summer. Flannelmouth suckers prefer large rivers, where they are often found in deep pools of slow-flowing, low gradient reaches (UDWR 2010b).

The Virgin Spinedace (*Lepidomeda mollispinis*) is a small minnow originally found throughout the Virgin River system of Utah, Nevada, and Arizona. However, due to dewatering, habitat fragmentation, flow alteration, and the introduction of nonnative fishes, Virgin spinedace populations declined in the late 1980's and 1990's, and the species was missing in portions of its historic range. Efforts are now underway to restore Virgin spinedace populations to acceptable levels. On May 18, 1994, the Virgin spinedace was proposed for listing as a Threatened Species (USFWS 1994b), and April 5, 1995, USFWS proposed designation of Critical Habitat (USFWS 1995b) under the Endangered Species Act. Later in 1995, the Virgin Spinedace Conservation Agreement was executed by state, local and federal agencies to provide enhancement and protection to the Virgin spinedace and habitat in an effort to remove threats, and thereby preclude the need for listing of this species (UDWR 2002). Implementation of the Virgin Spinedace Conservation Agreement has been very successful, and a number of beneficial actions have been completed for the protection and enhancement of this fish. The following, along with many other beneficial actions have been implemented: 1) extensive monitoring program, 2) re-occupation of historic habitats through establishment of in-stream flows, 3) connectivity of habits through removal of barriers and diversions, and 4) removal of predation, and competition from non-native species (UDWR 2008).

Virgin spinedace are opportunistic feeders, eating insects, insect larvae, other invertebrates, and plant matter. The species spawns during spring and late summer, usually during periods of high flows. Virgin spinedace prefer the clear, slow-moving water of creeks and small streams, and are usually found in areas with abundant cover. The subspecies of Virgin spinedace that occurs in Utah is *Lepidomeda mollispinis mollispinis* (UDWR 2010b).

Nominated area contains important riparian habitat (BLM 2010e), which support populations of BLM Sensitive Species.

The following species do not meet the importance criteria: Bald Eagle (BLM Sensitive Species) (BLM 2011b, USFWS, 2007), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b). Nominated area contains habitat for several species of Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species). Nominated area was found to be of local importance only.

References:

Addley and Hardy, 1993, Addley, R.C., T.B. Hardy. 1993. The Current Distribution and Status of Spinedace in the Virgin River Basin, 1993.

BLM, 2011b, United States Bureau of Land Management (BLM), 2011. Utah State Office, State Directors List of Sensitive Species, February 3, 2011.

BLM, 2010e, United States Bureau of Land Management (BLM), 2010. Riparian Studies in Washington County, Utah (BLM Lands), St. George Field Office, St. George, Utah, 2010.

UDNR, 2002, Utah Department of Natural Resources (UDNR), 2002. Program Document for the Virgin River Resource Management and Recovery Program, 2002.

UDWR, 2002, Utah Division of Wildlife Resources (UDWR), 2002. Revised Virgin Spinedace Conservation Strategy, January 2002, Utah Division of Wildlife Resources, Publication No. 02-22.

UDWR 2004, Utah Division of Wildlife Resources (UDWR), 2004. Rangewide Conservation Agreement For Roundtail Chub, Bluehead Sucker, and Flannel-mouth Sucker, January 2004, Utah Division of Wildlife Resources, January 27, 2004.

UDWR, 2007b, Utah Division of Wildlife Resources (UDWR), 2007. Population Monitoring of Neotropical Migratory Birds in Riparian Habitats of Utah, UDWR Publication Number 07-17, August 15, 2007.

UDWR, 2008, Utah Division of Wildlife Resources (UDWR), 2008. Virgin Spinedace Conservation Agreement and Strategy, 2000 to 2008 Assessment, December 2008.

UDWR, 2010a, Utah Division of Wildlife Resources (UDWR), 2009. Final Virgin Spinedace Population Monitoring Summary, 1994-2009, Publication # 10-04, Utah Division of Wildlife Resources, Salt Lake City, Utah, February, 2010.

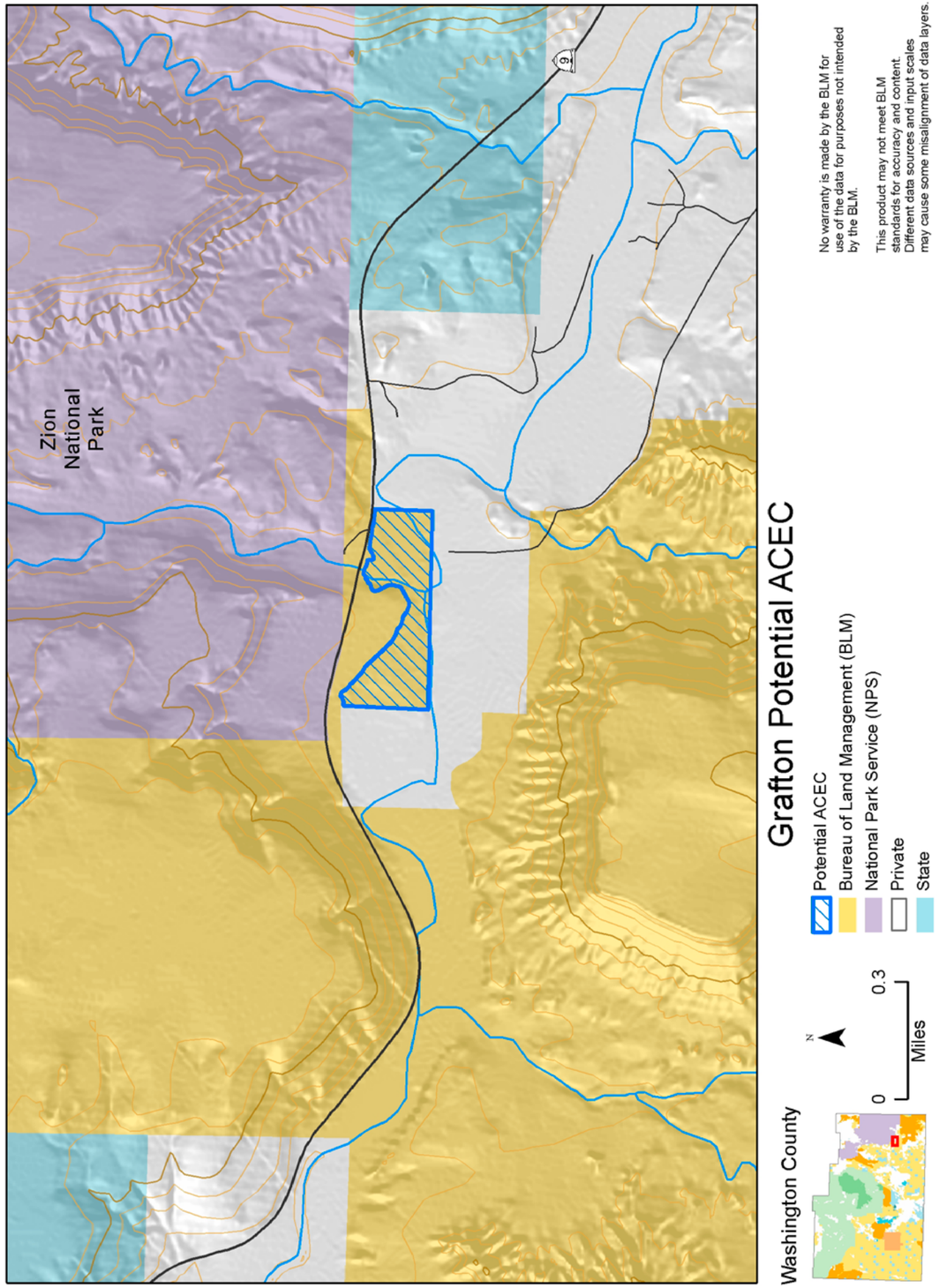
UDWR, 2010b, Utah Division of Wildlife Resources (UDWR), 2010. Vertebrate Animal Factsheets, Website: <http://dwrcdc.nr.utah.gov/Search/SearchVerts.asp> Accessed January through April, 2010.

USFWS, 1994b, United States Fish and Wildlife Service (USFWS), 1994. Proposal to List the Fish Virgin Spinedace as a Threatened Species. 59 Federal Register 25875 25880, May 18, 1994.

USFWS, 1995b, United States Fish and Wildlife Service (USFWS), 1995. Proposed Determination of Critical Habitat for Woundfin, Virgin River Chub, and Virgin Spinedace, and Notice of Public Meeting. 65 Federal Register 17296 17311, April 5, 1995.

USFWS, 2007, United States Fish and Wildlife Service (USFWS), 2007. Final Rule to Delist the Bald Eagle in the Lower 48 States From the Federal List of Endangered and Threatened Wildlife. 72 Federal Register 37345 37375, July 9, 2007.

USFWS, 2008b, United States Fish and Wildlife Service (USFWS), 2008. Birds of Conservation Concern, U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. Website: <http://www.fws.gov/migratory birds/>, Accessed June 2010.



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4.3 Harrisburg Bench

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: Harrisburg Bench

Location of Potential ACEC: Eastern Washington County, South of the town of Leeds

Nominations included in the Potential ACEC: USFWS Harrisburg Bench

Acreage: 111 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: designated critical habitat (USFWS 2006b) for declining populations of Shivwits milkvetch (Federally Endangered Species) (USFWS 2001b, USFWS 2006a). Nominated area contains habitat for Gila monsters (BLM Sensitive, and Federally Petitioned Species) (BLM 2011b, USFWS 1982, USFWS 1985b, USFWS 1991, USFWS 1994d, USFWS 2011).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of the endangered species Shivwits milkvetch.

Shivwits Milkvetch (*Astragalus ampullarioides*) was listed federally endangered on September 28, 2001(USFWS 2001b) and presently occurs only in Washington County, Utah. Critical Habitat for Shivwits milkvetch was designated on December 27, 2006 (USFWS 2006b), and a recovery plan was developed for the Shivwits milkvetch in 2006 (USFWS 2006a). The Shivwits Milkvetch Recovery Plan identified five populations across its range. Since 2006, two additional populations (Dalton Wash and Cole Springs populations) were discovered in 2010 (USFWS 2010d).

The following species do not meet the importance criteria: Nominated area contains habitat for Gila monsters (BLM Sensitive and Federally Petitioned Species) (BLM 2011b, USFWS 1982, USFWS 1985b, USFWS 1991, USFWS 1994d, USFWS 2011). This habitat is found on the fringe of the Red Cliffs NCA (priority habitat for this species) and is not more than locally important. Additionally in June of 2011 the USFWS issued a finding that declined to list Utah populations of the Gila monster.

References:

BLM, 2011b, United States Bureau of Land Management (BLM), 2011. Utah State Office, State Directors List of Sensitive Species, February 3, 2011.

USFWS, 1982, United States Fish and Wildlife Service (USFWS), 1982. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 47 Federal Register 58454 58460, December 30, 1982.

USFWS, 1985b, United States Fish and Wildlife Service (USFWS), 1985. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 50 Federal Register 37958 37967, September 18, 1985.

USFWS, 1991, United States Fish and Wildlife Service (USFWS), 1991. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 56 Federal Register 58804 58836, November 21, 1991.

USFWS, 1994d, United States Fish and Wildlife Service (USFWS), 1994. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife, However, information not available to support listing. 59 Federal Register 58982 59028, November 15, 1994.

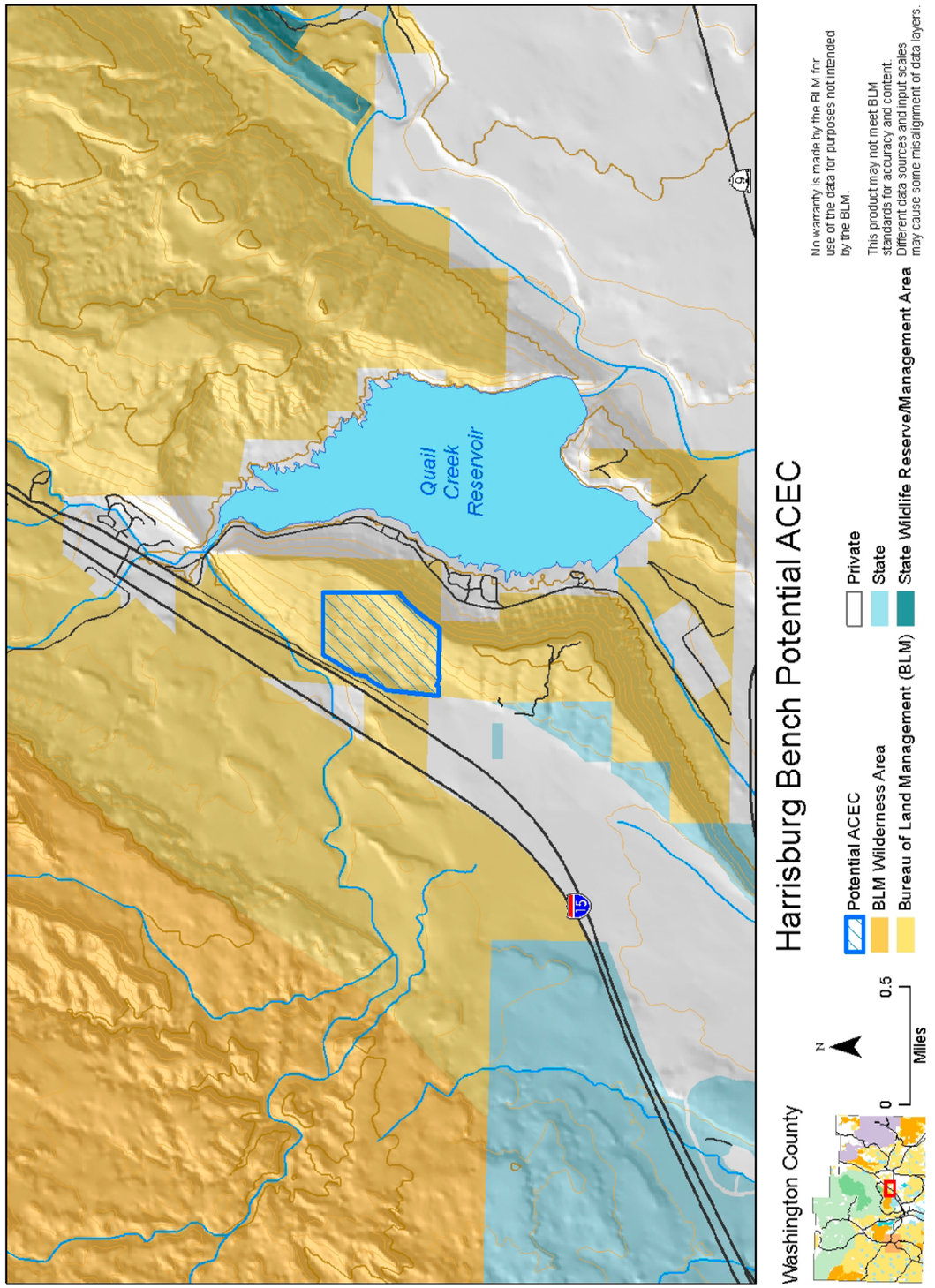
USFWS, 2001b, United States Fish and Wildlife Service (USFWS), 2001. Final Rule to List the Holmgren Milkvetch and the Shivwits Milkvetch. 66 Federal Register 49560 49567, September 28, 2001.

USFWS, 2006a, United States Fish and Wildlife Service (USFWS), 2006. Recovery Plan for the Holmgren Milkvetch and Shivwits Milkvetch, September 2006.

USFWS, 2006b, United States Fish and Wildlife Service (USFWS), 2006. Final Designation of Critical Habitat for Holmgren Milkvetch and Shivwits Milkvetch. 71 Federal Register 77971 78012, December 27, 2006.

USFWS, 2010d, United States Fish and Wildlife Service (USFWS), 2010. Unpublished Surveys of Shivwits Milkvetch on BLM and Zion National Parks lands, April 23, 2010.

USFWS, 2011, United States Fish and Wildlife Service (USFWS), 2011. Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition To List the Utah Population of the Gila Monster as an Endangered or a Threatened Distinct Population Segment, 76 Federal Register 36049 36053, June 21, 2011.



4.4 Moody Wash

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: Moody Wash

Location of Potential ACEC: Northwestern Washington County, tributary of the Santa Clara River

Nominations included in the Potential ACEC: CFDF Moody Wash, SGFO Moody Wash

Acreage: 24 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: Bald Eagle (BLM Sensitive Species) (BLM 2011b), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b), Spotted Bat (BLM Sensitive) (BLM 2011b, Rogers 1997), Desert Sucker (Addley and Hardy 1993) (BLM 2011b, UDNR 2002, and UDWR 2010a), Flannelmouth Sucker (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2004, and UDWR 2010a), Virgin Spinedace (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2002, UDWR 2010a), and riparian values.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of BLM sensitive species: Desert Sucker, Flannelmouth Sucker, Virgin Spinedace, and riparian values.

The Desert Sucker (*Catostomus clarkia*), is native to parts of the Colorado River system of the southwestern United States and northern Mexico. In Utah, the species occurs only in the Virgin River system in the southwestern corner of the state. Desert suckers are benthic (bottom dwelling) fish that primarily eat algae, although insects and other invertebrates are also occasionally consumed. Members of the species almost always occur in streams, where spawning occurs in riffles during the winter and spring (UDWR 2010b).

The Flannelmouth Sucker, (*Catostomus latipinnis*), is native to the Colorado River system of the western United States and northern Mexico. In Utah, the species occurs in the main-stem Colorado River, as well as in many of the Colorado River's large tributaries (Virgin River, and tributaries here in Washington County). Flannelmouth suckers are usually absent from impoundments. In recent times, Utah Flannelmouth sucker populations have been reduced

in both numbers and distribution, primarily due to flow alteration, habitat loss/alteration, and the introduction of nonnative fishes. Flannelmouth suckers are benthic (bottom dwelling) fish that primarily eat algae, although invertebrates and many types of plant matter are also consumed. The species spawns in streams over gravelly areas during the spring and early summer. Flannelmouth suckers prefer large rivers, where they are often found in deep pools of slow-flowing, low gradient reaches (UDWR 2010b).

The Virgin Spinedace (*Lepidomeda mollispinis*) is a small minnow originally found throughout the Virgin River system of Utah, Nevada, and Arizona. However, due to dewatering, habitat fragmentation, flow alteration, and the introduction of nonnative fishes, Virgin spinedace populations declined in the late 1980's and 1990's, and the species was missing in portions of its historic range. Efforts are now underway to restore Virgin spinedace populations to acceptable levels. On May 18, 1994, the Virgin spinedace was proposed for listing as a Threatened Species (USFWS 1994b), and April 5, 1995, USFWS proposed designation of Critical Habitat (USFWS 1995b) under the Endangered Species Act. Later in 1995, the Virgin Spinedace Conservation Agreement was executed by state, local and federal agencies to provide enhancement and protection to the Virgin spinedace and habitat in an effort to remove threats, and thereby preclude the need for listing of this species (UDWR 2002). Implementation of the Virgin Spinedace Conservation Agreement has been very successful, and a number of beneficial actions have been completed for the protection and enhancement of this fish. The following, along with many other beneficial actions have been implemented: 1) extensive monitoring program, 2) re-occupation of historic habitats through establishment of in-stream flows, 3) connectivity of habits through removal of barriers and diversions, and 4) removal of predation, and competition from non-native species (UDWR 2008).

Virgin spinedace are opportunistic feeders, eating insects, insect larvae, other invertebrates, and plant matter. The species spawns during spring and late summer, usually during periods of high flows. Virgin spinedace prefer the clear, slow-moving water of creeks and small streams, and are usually found in areas with abundant cover. The subspecies of Virgin spinedace that occurs in Utah is *Lepidomeda mollispinis mollispinis* (UDWR 2010b).

Nominated area contains important riparian habitat (BLM 2010e), which support populations of BLM Sensitive Species.

The following species do not meet the importance criteria: Bald Eagle (BLM Sensitive Species) (BLM 2011b, USFWS, 2007), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b) Spotted Bat (BLM Sensitive) (BLM 2011b, Rogers 1997). Nominated area contains habitat for several species of Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species). Nominated area was found to be of local importance only.

References:

Addley and Hardy, 1993, Addley, R.C., T.B. Hardy. 1993. The Current Distribution and Status of Spinedace in the Virgin River Basin, 1993.

BLM, 2011b, United States Bureau of Land Management (BLM), 2011. Utah State Office, State Directors List of Sensitive Species, February 3, 2011.

BLM, 2010e, United States Bureau of Land Management (BLM), 2010. Riparian Studies in Washington County, Utah (BLM Lands), St. George Field Office, St. George, Utah, 2010.

Rogers, 1997, Rogers, Duke S., 1997. Spotted Bat (*Euderma maculatum*) and Former C2 Species Inventory in Washington County, Utah, Final Report submitted to BLM, February 21, 1997.

UDNR, 2002, Utah Department of Natural Resources (UDNR), 2002. Program Document for the Virgin River Resource Management and Recovery Program, 2002.

UDWR, 2002, Utah Division of Wildlife Resources (UDWR), 2002. Revised Virgin Spinedace Conservation Strategy, January 2002, Utah Division of Wildlife Resources, Publication No. 02-22.

UDWR 2004, Utah Division of Wildlife Resources (UDWR), 2004. Rangewide Conservation Agreement For Roundtail Chub, Bluehead Sucker, and Flannel-mouth Sucker, January 2004, Utah Division of Wildlife Resources, January 27, 2004.

UDWR, 2007b, Utah Division of Wildlife Resources (UDWR), 2007. Population Monitoring of Neotropical Migratory Birds in Riparian Habitats of Utah, UDWR Publication Number 07-17, August 15, 2007.

UDWR, 2008, Utah Division of Wildlife Resources (UDWR), 2008. Virgin Spinedace Conservation Agreement and Strategy, 2000 to 2008 Assessment, December 2008.

UDWR, 2010a, Utah Division of Wildlife Resources (UDWR), 2009. Final Virgin Spinedace Population Monitoring Summary, 1994-2009, Publication # 10-04, Utah Division of Wildlife Resources, Salt Lake City, Utah, February, 2010.

UDWR, 2010b, Utah Division of Wildlife Resources (UDWR), 2010. Vertebrate Animal Factsheets, Website: <http://dwrcdc.nr.utah.gov/Search/SearchVerts.asp> Accessed January through April, 2010.

USFWS, 1994b, United States Fish and Wildlife Service (USFWS), 1994. Proposal to List the Fish Virgin Spinedace as a Threatened Species. 59 Federal Register 25875 25880, May 18, 1994.

USFWS, 1995b, United States Fish and Wildlife Service (USFWS), 1995. Proposed Determination of Critical Habitat for Woundfin, Virgin River Chub, and Virgin Spinedace, and Notice of Public Meeting. 65 Federal Register 17296 17311, April 5, 1995.

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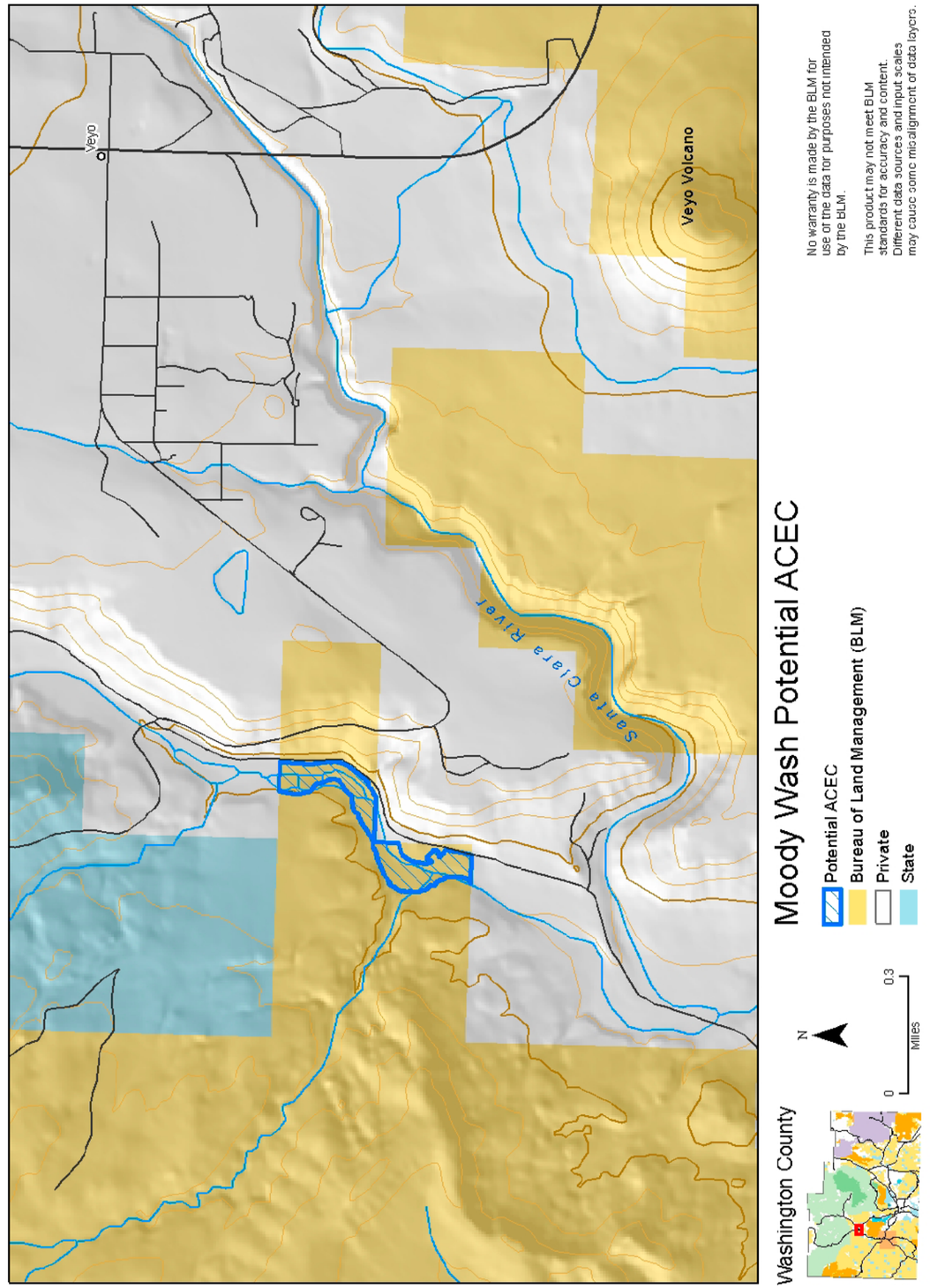

4.5 Mosquito Cove

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: Mosquito Cove

Location of Potential ACEC: Virgin River, west of the town of Rockville, UT

Nominations included in the Potential ACEC: CFDF Virgin River, CFDF Zion Scenic Corridor, VRLP Virgin River and Tributaries, SGFO Virgin River Grafton

Acreage: 88 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: Bald Eagle (BLM Sensitive Species) (BLM 2011b), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b), Desert Sucker (Addley and Hardy 1993) (BLM 2011b, UDNR 2002, and UDWR 2010a), Flannelmouth Sucker (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2004, and UDWR 2010a), Virgin Spinedace (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2002, UDWR 2010a), and riparian values.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of BLM sensitive species: Desert Sucker, Flannelmouth Sucker, Virgin Spinedace, and riparian values.

The Desert Sucker (*Catostomus clarkia*), is native to parts of the Colorado River system of the southwestern United States and northern Mexico. In Utah, the species occurs only in the Virgin River system in the southwestern corner of the state. Desert suckers are benthic (bottom dwelling) fish that primarily eat algae, although insects and other invertebrates are also occasionally consumed. Members of the species almost always occur in streams, where spawning occurs in riffles during the winter and spring (UDWR 2010b).

The Flannelmouth Sucker, (*Catostomus latipinnis*), is native to the Colorado River system of the western United States and northern Mexico. In Utah, the species occurs in the main-stem Colorado River, as well as in many of the Colorado River's large tributaries (Virgin River, and tributaries here in Washington County). Flannelmouth suckers are usually absent from impoundments. In recent times, Utah Flannelmouth sucker populations have been reduced

in both numbers and distribution, primarily due to flow alteration, habitat loss/alteration, and the introduction of nonnative fishes. Flannelmouth suckers are benthic (bottom dwelling) fish that primarily eat algae, although invertebrates and many types of plant matter are also consumed. The species spawns in streams over gravelly areas during the spring and early summer. Flannelmouth suckers prefer large rivers, where they are often found in deep pools of slow-flowing, low gradient reaches (UDWR 2010b).

The Virgin Spinedace (*Lepidomeda mollispinis*) is a small minnow originally found throughout the Virgin River system of Utah, Nevada, and Arizona. However, due to dewatering, habitat fragmentation, flow alteration, and the introduction of nonnative fishes, Virgin spinedace populations declined in the late 1980's and 1990's, and the species was missing in portions of its historic range. Efforts are now underway to restore Virgin spinedace populations to acceptable levels. On May 18, 1994, the Virgin spinedace was proposed for listing as a Threatened Species (USFWS 1994b), and April 5, 1995, USFWS proposed designation of Critical Habitat (USFWS 1995b) under the Endangered Species Act. Later in 1995, the Virgin Spinedace Conservation Agreement was executed by state, local and federal agencies to provide enhancement and protection to the Virgin spinedace and habitat in an effort to remove threats, and thereby preclude the need for listing of this species (UDWR 2002). Implementation of the Virgin Spinedace Conservation Agreement has been very successful, and a number of beneficial actions have been completed for the protection and enhancement of this fish. The following, along with many other beneficial actions have been implemented: 1) extensive monitoring program, 2) re-occupation of historic habitats through establishment of in-stream flows, 3) connectivity of habits through removal of barriers and diversions, and 4) removal of predation, and competition from non-native species (UDWR 2008).

Virgin spinedace are opportunistic feeders, eating insects, insect larvae, other invertebrates, and plant matter. The species spawns during spring and late summer, usually during periods of high flows. Virgin spinedace prefer the clear, slow-moving water of creeks and small streams, and are usually found in areas with abundant cover. The subspecies of Virgin spinedace that occurs in Utah is *Lepidomeda mollispinis mollispinis* (UDWR 2010b).

Nominated area contains important riparian habitat (BLM 2010e), which support populations of BLM Sensitive Species.

The following species do not meet the importance criteria: Bald Eagle (BLM Sensitive Species) (BLM 2011b, USFWS, 2007), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b). Nominated area contains habitat for several species of Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species). Nominated area was found to be of local importance only.

References:

Addley and Hardy, 1993, Addley, R.C., T.B. Hardy. 1993. The Current Distribution and Status of Spinedace in the Virgin River Basin, 1993.

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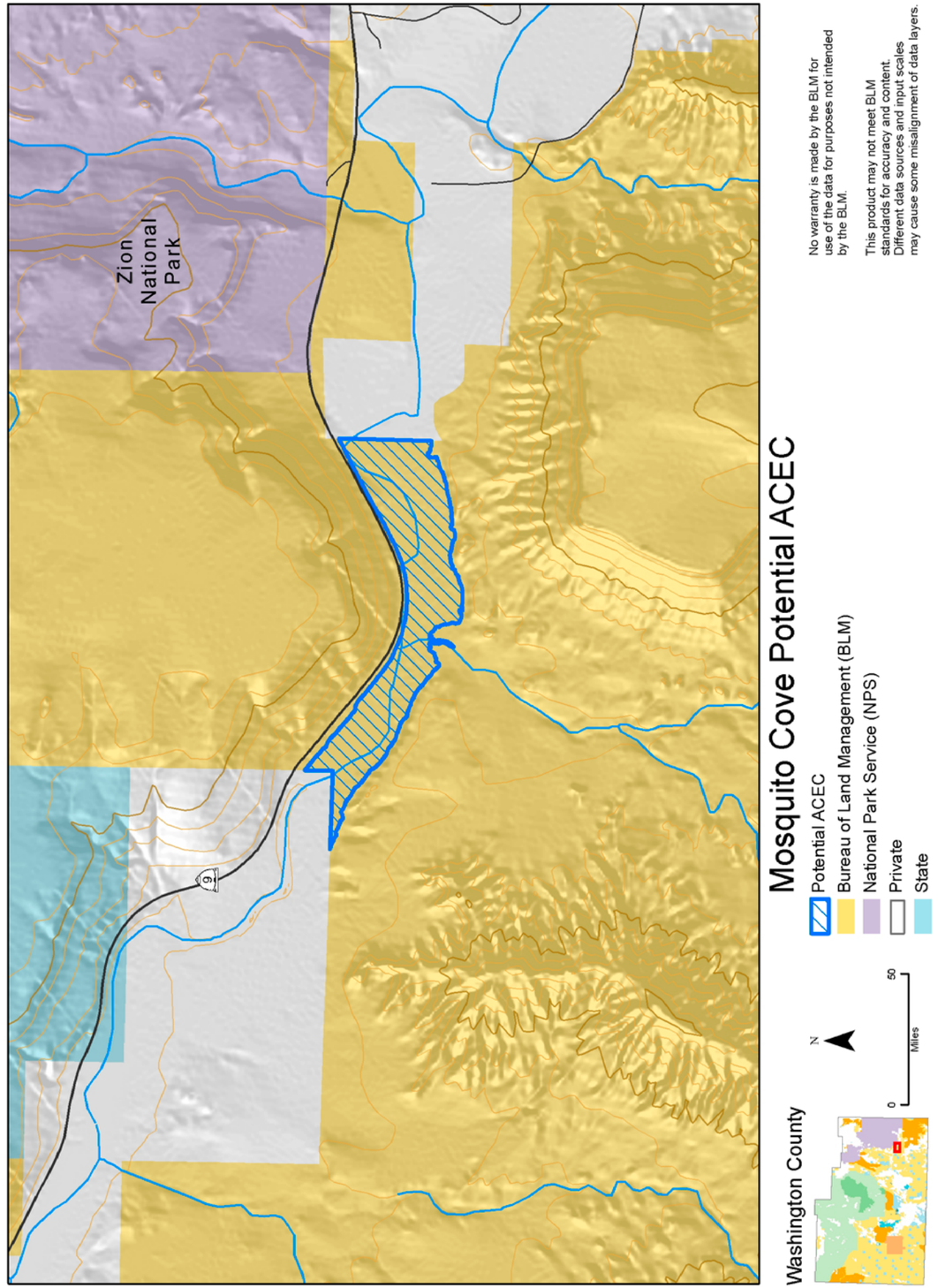

4.6 North Creek

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: North Creek

Location of Potential ACEC: Eastern Washington County, north of the Town of Virgin.

Nominations included in the Potential ACEC: CFDF Zion Scenic Corridor, SUWA North Creek, VRLP Virgin River and Tributaries

Acreage: 54 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: Bald Eagle (BLM Sensitive Species) (BLM 2011b), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b), Desert Sucker (Addley and Hardy 1993) (BLM 2011b, UDNR 2002, and UDWR 2010a), Flannelmouth Sucker (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2004, and UDWR 2010a), Virgin Spinedace (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2002, UDWR 2010a), and riparian values.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of BLM sensitive species: Desert Sucker, Flannelmouth Sucker, Virgin Spinedace, and riparian values.

The Desert Sucker (*Catostomus clarkia*), is native to parts of the Colorado River system of the southwestern United States and northern Mexico. In Utah, the species occurs only in the Virgin River system in the southwestern corner of the state. Desert suckers are benthic (bottom dwelling) fish that primarily eat algae, although insects and other invertebrates are also occasionally consumed. Members of the species almost always occur in streams, where spawning occurs in riffles during the winter and spring (UDWR 2010b).

The Flannelmouth Sucker, (*Catostomus latipinnis*), is native to the Colorado River system of the western United States and northern Mexico. In Utah, the species occurs in the main-stem Colorado River, as well as in many of the Colorado River's large tributaries (Virgin River, and tributaries here in Washington County). Flannelmouth suckers are usually absent from impoundments. In recent times, Utah Flannelmouth sucker populations have been reduced

in both numbers and distribution, primarily due to flow alteration, habitat loss/alteration, and the introduction of nonnative fishes. Flannelmouth suckers are benthic (bottom dwelling) fish that primarily eat algae, although invertebrates and many types of plant matter are also consumed. The species spawns in streams over gravelly areas during the spring and early summer. Flannelmouth suckers prefer large rivers, where they are often found in deep pools of slow-flowing, low gradient reaches (UDWR 2010b).

The Virgin Spinedace (*Lepidomeda mollispinis*) is a small minnow originally found throughout the Virgin River system of Utah, Nevada, and Arizona. However, due to dewatering, habitat fragmentation, flow alteration, and the introduction of nonnative fishes, Virgin spinedace populations declined in the late 1980's and 1990's, and the species was missing in portions of its historic range. Efforts are now underway to restore Virgin spinedace populations to acceptable levels. On May 18, 1994, the Virgin spinedace was proposed for listing as a Threatened Species (USFWS 1994b), and April 5, 1995, USFWS proposed designation of Critical Habitat (USFWS 1995b) under the Endangered Species Act. Later in 1995, the Virgin Spinedace Conservation Agreement was executed by state, local and federal agencies to provide enhancement and protection to the Virgin spinedace and habitat in an effort to remove threats, and thereby preclude the need for listing of this species (UDWR 2002). Implementation of the Virgin Spinedace Conservation Agreement has been very successful, and a number of beneficial actions have been completed for the protection and enhancement of this fish. The following, along with many other beneficial actions have been implemented: 1) extensive monitoring program, 2) re-occupation of historic habitats through establishment of in-stream flows, 3) connectivity of habits through removal of barriers and diversions, and 4) removal of predation, and competition from non-native species (UDWR 2008).

Virgin spinedace are opportunistic feeders, eating insects, insect larvae, other invertebrates, and plant matter. The species spawns during spring and late summer, usually during periods of high flows. Virgin spinedace prefer the clear, slow-moving water of creeks and small streams, and are usually found in areas with abundant cover. The subspecies of Virgin spinedace that occurs in Utah is *Lepidomeda mollispinis mollispinis* (UDWR 2010b).

Nominated area contains important riparian habitat (BLM 2010e), which support populations of BLM Sensitive Species.

The following species do not meet the importance criteria: Bald Eagle (BLM Sensitive Species) (BLM 2011b, USFWS, 2007), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b). Nominated area contains habitat for several species of Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species). Nominated area was found to be of local importance only.

References:

Addley and Hardy, 1993, Addley, R.C., T.B. Hardy. 1993. The Current Distribution and Status of Spinedace in the Virgin River Basin, 1993.

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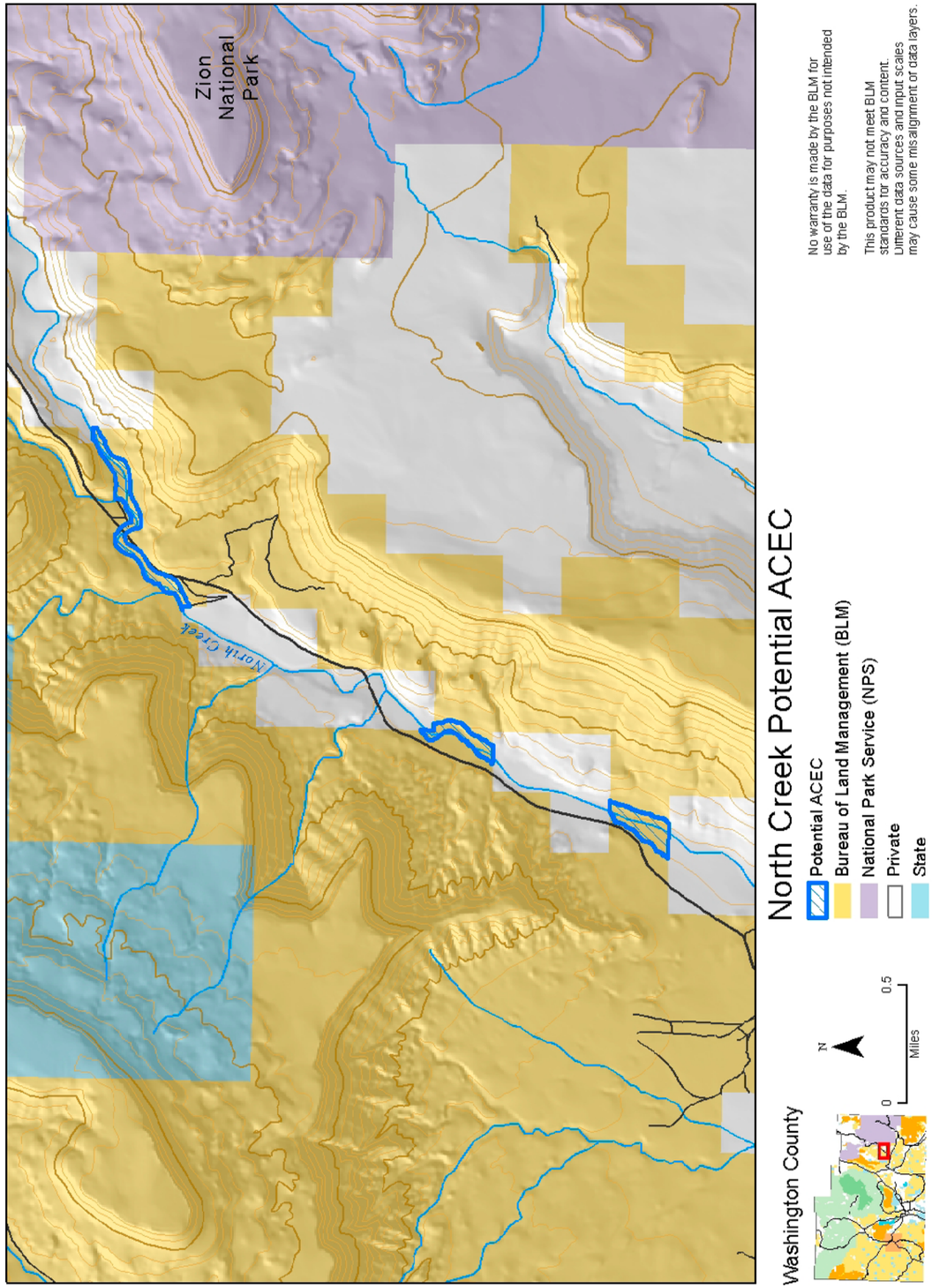

4.7 Santa Clara River Baker

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: Santa Clara River Baker

Location of Potential ACEC: Western Washington County, Santa Clara River below Baker Dam Reservoir

Nominations included in the Potential ACEC: CFDF Upper Santa Clara River, SGFO Santa Clara River Baker

Acreage: 32 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: Bald Eagle (BLM Sensitive Species) (BLM 2011b), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b), Spotted Bat (BLM Sensitive) (BLM 2011b, Rogers 1997), Desert Sucker (Addley and Hardy 1993) (BLM 2011b, UDNR 2002, and UDWR 2010a), Flannelmouth Sucker (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2004, and UDWR 2010a), Virgin Spinedace (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2002, UDWR 2010a), and riparian values.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of BLM sensitive species: Desert Sucker, Flannelmouth Sucker, Virgin Spinedace, and riparian values.

The Desert Sucker (*Catostomus clarkia*), is native to parts of the Colorado River system of the southwestern United States and northern Mexico. In Utah, the species occurs only in the Virgin River system in the southwestern corner of the state. Desert suckers are benthic (bottom dwelling) fish that primarily eat algae, although insects and other invertebrates are also occasionally consumed. Members of the species almost always occur in streams, where spawning occurs in riffles during the winter and spring (UDWR 2010b).

The Flannelmouth Sucker, (*Catostomus latipinnis*), is native to the Colorado River system of the western United States and northern Mexico. In Utah, the species occurs in the main-stem Colorado River, as well as in many of the Colorado River's large tributaries (Virgin River, and tributaries here in Washington County). Flannelmouth suckers are usually absent from impoundments. In recent times, Utah Flannelmouth sucker populations have been reduced

in both numbers and distribution, primarily due to flow alteration, habitat loss/alteration, and the introduction of nonnative fishes. Flannelmouth suckers are benthic (bottom dwelling) fish that primarily eat algae, although invertebrates and many types of plant matter are also consumed. The species spawns in streams over gravelly areas during the spring and early summer. Flannelmouth suckers prefer large rivers, where they are often found in deep pools of slow-flowing, low gradient reaches (UDWR 2010b).

The Virgin Spinedace (*Lepidomeda mollispinis*) is a small minnow originally found throughout the Virgin River system of Utah, Nevada, and Arizona. However, due to dewatering, habitat fragmentation, flow alteration, and the introduction of nonnative fishes, Virgin spinedace populations declined in the late 1980's and 1990's, and the species was missing in portions of its historic range. Efforts are now underway to restore Virgin spinedace populations to acceptable levels. On May 18, 1994, the Virgin spinedace was proposed for listing as a Threatened Species (USFWS 1994b), and April 5, 1995, USFWS proposed designation of Critical Habitat (USFWS 1995b) under the Endangered Species Act. Later in 1995, the Virgin Spinedace Conservation Agreement was executed by state, local and federal agencies to provide enhancement and protection to the Virgin spinedace and habitat in an effort to remove threats, and thereby preclude the need for listing of this species (UDWR 2002). Implementation of the Virgin Spinedace Conservation Agreement has been very successful, and a number of beneficial actions have been completed for the protection and enhancement of this fish. The following, along with many other beneficial actions have been implemented: 1) extensive monitoring program, 2) re-occupation of historic habitats through establishment of in-stream flows, 3) connectivity of habits through removal of barriers and diversions, and 4) removal of predation, and competition from non-native species (UDWR 2008).

Virgin spinedace are opportunistic feeders, eating insects, insect larvae, other invertebrates, and plant matter. The species spawns during spring and late summer, usually during periods of high flows. Virgin spinedace prefer the clear, slow-moving water of creeks and small streams, and are usually found in areas with abundant cover. The subspecies of Virgin spinedace that occurs in Utah is *Lepidomeda mollispinis mollispinis* (UDWR 2010b).

Nominated area contains important riparian habitat (BLM 2010e), which support populations of BLM Sensitive Species.

The following species do not meet the importance criteria: Bald Eagle (BLM Sensitive Species) (BLM 2011b, USFWS, 2007), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b) Spotted Bat (BLM Sensitive) (BLM 2011b, Rogers 1997). Nominated area contains habitat for several species of Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species). Nominated area was found to be of local importance only.

References:

Addley and Hardy, 1993, Addley, R.C., T.B. Hardy. 1993. The Current Distribution and Status of Spinedace in the Virgin River Basin, 1993.

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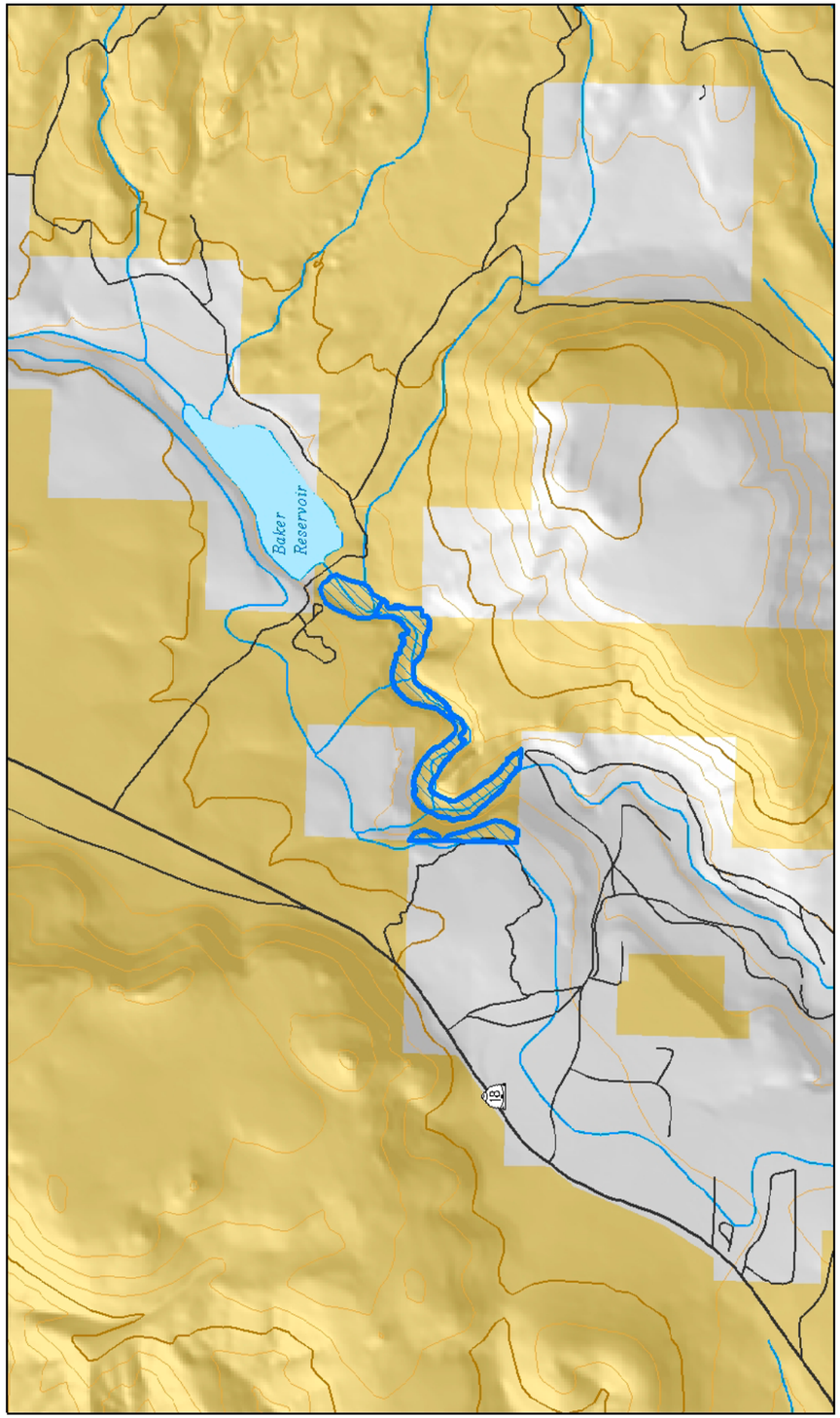

4.8 Santa Clara River Veyo

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: Santa Clara River Veyo

Location of Potential ACEC: Western Washington County, Santa Clara River south of Veyo, Utah

Nominations included in the Potential ACEC: CFDF Upper Santa Clara River, SGFO Santa Clara River Veyo

Acreage: 16 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: Bald Eagle (BLM Sensitive Species) (BLM 2011b), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b), Spotted Bat (BLM Sensitive) (BLM 2011b, Rogers 1997), Desert Sucker (Addley and Hardy 1993) (BLM 2011b, UDNR 2002, and UDWR 2010a), Flannelmouth Sucker (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2004, and UDWR 2010a), Virgin Spinedace (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2002, UDWR 2010a), and riparian values.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of BLM sensitive species: Desert Sucker, Flannelmouth Sucker, Virgin Spinedace, and riparian values.

The Desert Sucker (*Catostomus clarkia*), is native to parts of the Colorado River system of the southwestern United States and northern Mexico. In Utah, the species occurs only in the Virgin River system in the southwestern corner of the state. Desert suckers are benthic (bottom dwelling) fish that primarily eat algae, although insects and other invertebrates are also occasionally consumed. Members of the species almost always occur in streams, where spawning occurs in riffles during the winter and spring (UDWR 2010b).

The Flannelmouth Sucker, (*Catostomus latipinnis*), is native to the Colorado River system of the western United States and northern Mexico. In Utah, the species occurs in the main-stem Colorado River, as well as in many of the Colorado River's large tributaries (Virgin River, and tributaries here in Washington County). Flannelmouth suckers are usually absent from impoundments. In recent times, Utah Flannelmouth sucker populations have been reduced

in both numbers and distribution, primarily due to flow alteration, habitat loss/alteration, and the introduction of nonnative fishes. Flannelmouth suckers are benthic (bottom dwelling) fish that primarily eat algae, although invertebrates and many types of plant matter are also consumed. The species spawns in streams over gravelly areas during the spring and early summer. Flannelmouth suckers prefer large rivers, where they are often found in deep pools of slow-flowing, low gradient reaches (UDWR 2010b).

The Virgin Spinedace (*Lepidomeda mollispinis*) is a small minnow originally found throughout the Virgin River system of Utah, Nevada, and Arizona. However, due to dewatering, habitat fragmentation, flow alteration, and the introduction of nonnative fishes, Virgin spinedace populations declined in the late 1980's and 1990's, and the species was missing in portions of its historic range. Efforts are now underway to restore Virgin spinedace populations to acceptable levels. On May 18, 1994, the Virgin spinedace was proposed for listing as a Threatened Species (USFWS 1994b), and April 5, 1995, USFWS proposed designation of Critical Habitat (USFWS 1995b) under the Endangered Species Act. Later in 1995, the Virgin Spinedace Conservation Agreement was executed by state, local and federal agencies to provide enhancement and protection to the Virgin spinedace and habitat in an effort to remove threats, and thereby preclude the need for listing of this species (UDWR 2002). Implementation of the Virgin Spinedace Conservation Agreement has been very successful, and a number of beneficial actions have been completed for the protection and enhancement of this fish. The following, along with many other beneficial actions have been implemented: 1) extensive monitoring program, 2) re-occupation of historic habitats through establishment of in-stream flows, 3) connectivity of habits through removal of barriers and diversions, and 4) removal of predation, and competition from non-native species (UDWR 2008).

Virgin spinedace are opportunistic feeders, eating insects, insect larvae, other invertebrates, and plant matter. The species spawns during spring and late summer, usually during periods of high flows. Virgin spinedace prefer the clear, slow-moving water of creeks and small streams, and are usually found in areas with abundant cover. The subspecies of Virgin spinedace that occurs in Utah is *Lepidomeda mollispinis mollispinis* (UDWR 2010b).

Nominated area contains important riparian habitat (BLM 2010e), which support populations of BLM Sensitive Species.

The following species do not meet the importance criteria: Bald Eagle (BLM Sensitive Species) (BLM 2011b, USFWS, 2007), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b). Nominated area contains habitat for several species of Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species). Nominated area was found to be of local importance only.

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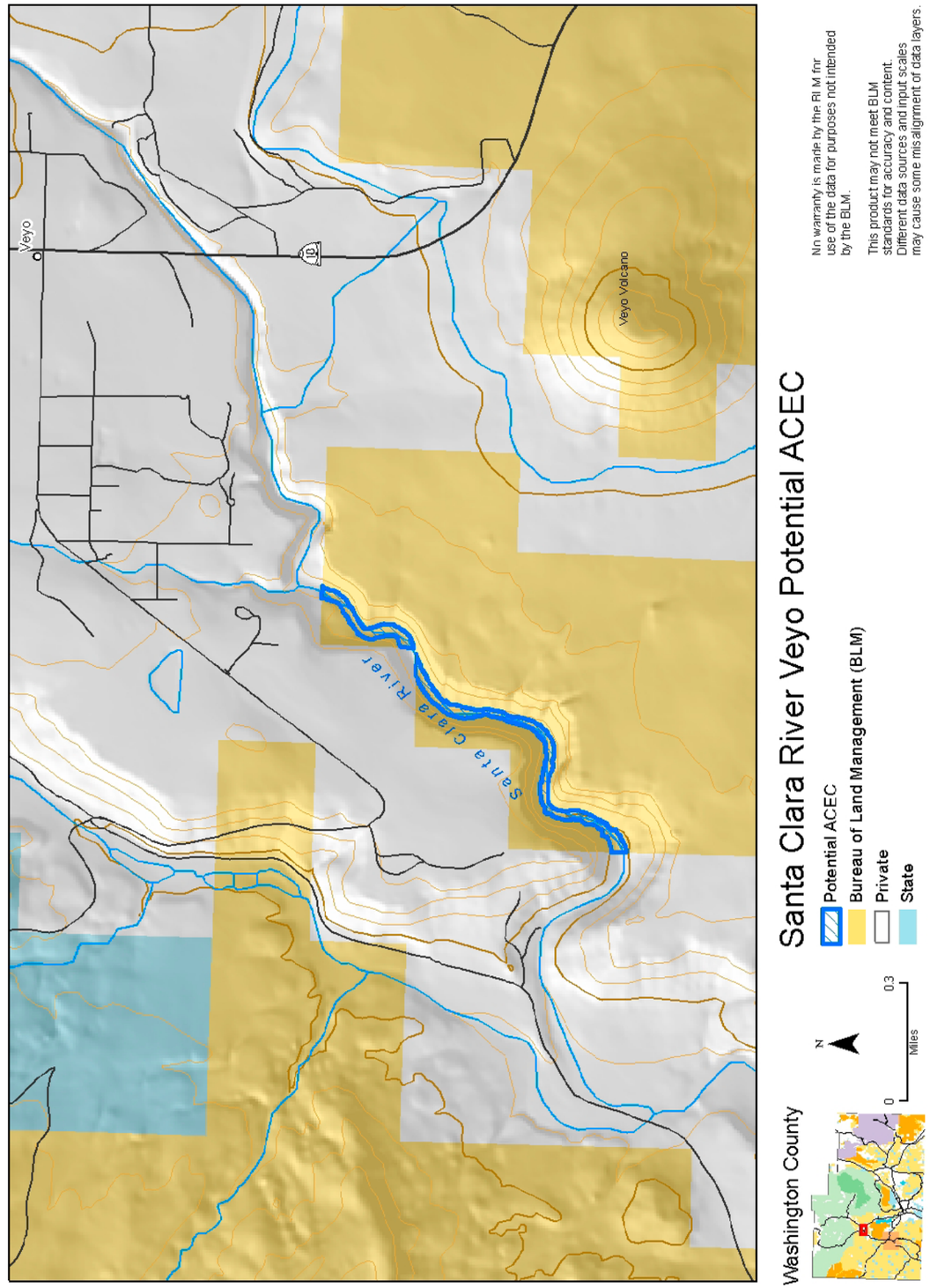
USFWS, 2008b, United States Fish and Wildlife Service (USFWS), 2008. Birds of Conservation Concern, U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. Website: <http://www.fws.gov/migratory birds/>, Accessed June 2010.



4.9 Scarecrow Peak

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: Scarecrow Peak

Location of Potential ACEC: Western Washington County, west slope of the Beaver Dam Mountains.

Nominations included in the Potential ACEC: SUWA Greater Beaver Dam Slope, USFWS Beaver Dam Slope Expansion, WS Beaver Dam, WWP Beaver Dam Slope Expansion

Acreage: 9,665 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: Desert Tortoise (Federally Threatened Species) (USFWS 1994a, USFWS 1990a, USFWS 1994c), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b), Desert Sucker (BLM Sensitive Species) (Addley and Hardy 1993) (BLM 2011b, UDNR 2002, and UDWR 2010a), Virgin Spinedace (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2002, UDWR 2010a).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of Threatened species: Desert Tortoise.

Desert Tortoise (*Gopherus agassizii*) are long-lived herbivores that are active above-ground primarily during the spring, early summer, and fall months. The remainder of the year they spend in burrows, escaping the extreme weather conditions of the desert. It is characterized by transitional vegetation represented by sagebrush (*Artemisia filifolia*), black brush (*Coleogyne ramosissima*), and Utah juniper (*Juniperus osteosperma*). Here, desert tortoises live in a complex and rugged topography consisting of rock caves, canyons, mesas, sand dunes, and sandstone outcrops (USFWS 1993b). Within these two recovery units, desert tortoises potentially can survive and reproduce where their basic habitat requirements are met. These requirements include a sufficient amount and quality of forage species, shelter sites for protection from predators and environmental extremes, suitable substrates for burrowing, nesting, and overwintering, various plants for shelter and adequate area for movement, dispersal, and gene flow (USFWS 1993b). The desert tortoise is long-lived with a relatively slow rate of reproduction. Animals do not reach sexual maturity until they are 10 to 15 years old. Tortoise populations are probably dependent on years of sufficient and timely precipitation to produce sufficient forage for reproduction and survival. This life history makes a species susceptible to

environmental limitations that may affect recruitment of young animals into the population, or survival of breeding adults before replacement (USFWS 1990a).

The following species do not meet the importance criteria: Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b). Nominated area contains habitat for several species of Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species). Nominated area was found to be of local importance only.

Nominated area contains habitat (Addley and Hardy 1993) with very low populations of Desert sucker (BLM Sensitive Species) (BLM 2011b, UDNR 2002, and UDWR 2010a) and Virgin spinedace (BLM Sensitive Species) (BLM 2011b, UDNR 2002, UDWR 2008, USFWS 1994b, USFWS 1995b, and UDWR 2010a). Because of poor riparian vegetation, lack of permanent flows, and water quality (temperature), habitat potential is very low, so it is not more than locally important for Desert sucker and Virgin spinedace.

References:

Addley and Hardy, 1993, Addley, R.C., T.B. Hardy. 1993. The Current Distribution and Status of Spinedace in the Virgin River Basin, 1993.

BLM, 2011b, United States Bureau of Land Management (BLM), 2011. Utah State Office, State Directors List of Sensitive Species, February 3, 2011.

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UDWR, 2007b, Utah Division of Wildlife Resources (UDWR), 2007. Population Monitoring of Neotropical Migratory Birds in Riparian Habitats of Utah, UDWR Publication Number 07-17, August 15, 2007.

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USFWS, 1993b, United States Fish and Wildlife Service (USFWS), 1993. Proposed Determination of Critical Habitat for the Mojave Population of Desert Tortoise. 58 Federal Register 45748 45768. August 30, 1993.

USFWS, 1994a, United States Fish and Wildlife Service (USFWS), 1994. Final Determination of Critical Habitat for the Mojave Population of Desert Tortoise. 59 Federal Register 5820 5866. February 8, 1994.

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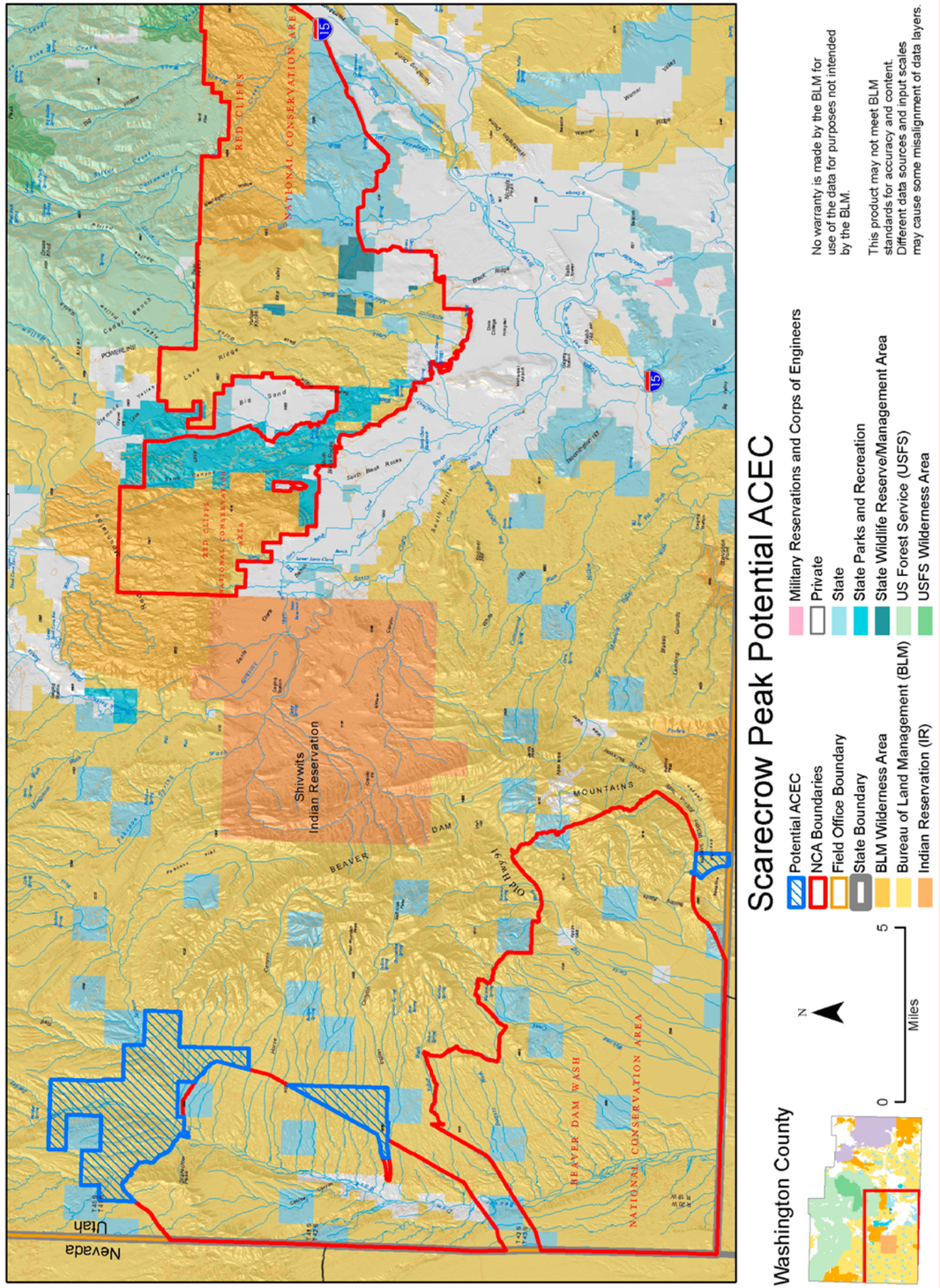
USFWS, 2008b, United States Fish and Wildlife Service (USFWS), 2008. Birds of Conservation Concern, U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. Website: <http://www.fws.gov/migratory birds/>, Accessed June 2010.



4.10 Shinob Kibe

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: Shinob Kibe

Location of Potential ACEC: Central Washington County, Virgin River at Shinob Kibe

Nominations included in the Potential ACEC: USFWS Shinob Kibe, SGFO Shinob Kibe

Acreage: 70 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: Dwarf bearclaw poppy (Federally Endangered Species) (USFWS 1979b, USFWS 1985a).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of the Endangered species: Dwarf bearclaw poppy.

The Dwarf bearclaw poppy (*Arctomecon humilis*) was federally listed endangered on November 6, 1979 (USFWS 1979b). In 1985, a recovery plan was developed for the dwarf bear-poppy (USFWS 1985a). Then in 1986, BLM developed a habitat management plan for this endangered plant (BLM 1986). The dwarf bearclaw poppy is a perennial herb endemic to gypsum soils derived from Moenkopi Formation (USFWS, 1985a).This plant found only in Washington County, Utah ranges from north of Wittwer Canyon south to White Hills and Val Spring Wash on the west to Shinob Kibe, Warner Ridge on the east (USFWS 1985a). Its habitat consists of rolling low hills and ridge tops composed of the gypsiferous clay soils, and the plant is found on barren, open sites in warm desert shrub communities where it is often associated with white bursage (*Ambrosia dumosa*), Torry ephedra (Ephedra torreyi), shadescale (*Atriplex confertifolia*), Mohave woodyaster (*Xylorhiza tortifolia*), and indigo bush (*Dalea fremontii*) (UNHP 2005).

References:

BLM, 1986, United States Bureau of Land Management (BLM), 1986. Dwarf bearclaw poppy Habitat Management Plan, Cedar City District, October 1986.

USFWS, 1979b, United States Fish and Wildlife Service (USFWS), 1979. Final Rule to List the Dwarf bearclaw poppy as an Endangered Species. 44 Federal Register 64250 64252, November 6, 1979.

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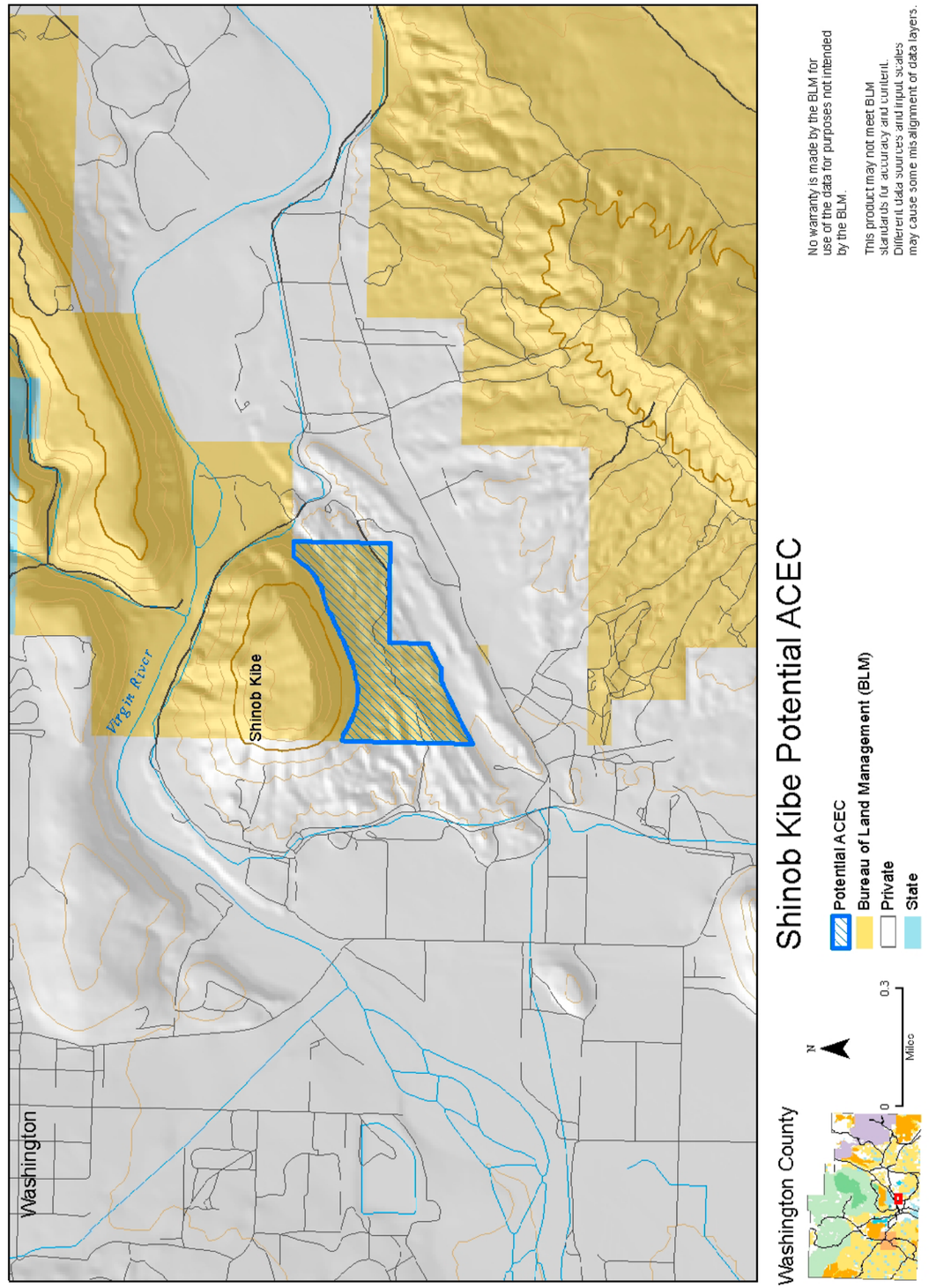
UNHP, 2005, Utah Natural Heritage Program (UNHP), 2005. Plant Information Compiled by the Natural Heritage Program: A Progress Report, Utah Division of Wildlife Resources, Publication No. 05-40.



4.11 South Hills

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: South Hills

Location of Potential ACEC: South and west of Santa Clara and St. George, UT

Nominations included in the Potential ACEC: UNPS Dwarf Bear-Poppy West, UNPS Holmgren Milkvetch, USFWS Red Bluff Expansion

Acreage: 1,950 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: Desert Tortoise (Federally Threatened Species) (USFWS 1994a, USFWS 1990a, USFWS 1994c), Gila monsters (BLM Sensitive) (BLM 2011b, USFWS 1982, USFWS 1985b, USFWS 1991, USFWS 1994d, USFWS 2011), Dwarf Bear-Poppy (Federally Endangered Species) (USFWS 1979b, USFWS 1985a), and Holmgren Milkvetch (Federally Endangered Species) (USFWS 2001b, USFWS 2006a, USFWS 2006b).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of Threatened, Endangered, and BLM sensitive species: Dwarf Bear-Poppy and Holmgren Milkvetch.

The Dwarf Bear-Poppy (*Arctomecon humilis*) was federally listed endangered on November 6, 1979 (USFWS 1979b). In 1985, a recovery plan was developed for the dwarf bear-poppy (USFWS 1985a). Then in 1986, BLM developed a habitat management plan for this endangered plant (BLM 1986). The dwarf bear-poppy is a perennial herb endemic to gypsum soils derived from Moenkopi Formation (USFWS, 1985a).This plant found only in Washington County, Utah ranges from north of Wittwer Canyon south to White Hills and Val Spring Wash on the west to Shinob Kibe, Warner Ridge on the east (USFWS 1985a). Its habitat consists of rolling low hills and ridge tops composed of the gypsiferous clay soils, and the plant is found on barren, open sites in warm desert shrub communities where it is often associated with white bursage (*Ambrosia dumosa*), Torry ephedra (*Ephedra torreyi)*, shadescale (*Atriplex confertifolia)*, Mohave woodyaster (*Xylorhiza tortifolia)*, and indigo bush (*Dalea fremontii*) (UNHP 2005).

Holmgren Milkvetch (*Astragalus ampullarioides*) was listed federally endangered on September 28, 2001 and presently occurs in Washington County, Utah, and Mohave County, Arizona (USFWS 2001b). Critical Habitat for Holmgren milkvetch was designated on December 27, 2006 (USFWS 2006b), and a recovery plan was developed for the Holmgren milkvetch in 2006 (USFWS 2006a). Holmgren milkvetch is an extremely short-lived perennial herb with low survivorship from germinated seedling to reproductive adult. Holmgren milkvetch grows on shallow, sparsely vegetated soils derived primarily from the Virgin limestone member of the Moenkopi Formation.

The following species do not meet the importance criteria: Nominated area contains habitat for Gila monsters (BLM Sensitive and Federally Petitioned Species) (BLM 2011b, USFWS 1982, USFWS 1985b, USFWS 1991, USFWS 1994d, USFWS 2011) and Desert Tortoise (Federally Threatened Species) (USFWS 1994a, USFWS 1990a, USFWS 1994c). This habitat is not more than locally important. Additionally in regard to the Gila monster, in June of 2011 the USFWS issued a finding that declined to list Utah populations of the Gila monster.

References:

Beck, 2005, Beck, D.D, 2005. Biology of Gila monsters and beaded lizards, University of California Press, Berkeley.

BLM, 1986, United States Bureau of Land Management (BLM), 1986. Dwarf Bear-poppy Habitat Management Plan, Cedar City District, October 1986.

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Fridell et al., 1998, Fridell, R.A., A.M. McLuckie, J.L. Nickolai, and L.D. Lentsch (Fridell et al.), 1998. Washington County sensitive species: native fish, amphibians, and reptile distribution assessment and inventory and monitoring plan. Publication #98-14. Utah Division of Wildlife Resources, Salt Lake City, Utah.

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UNHP, 2005, Utah Natural Heritage Program (UNHP), 2005. Plant Information Compiled by the Natural Heritage Program: A Progress Report, Utah Division of Wildlife Resources, Publication No. 05-40.

USFWS, 1979b, United States Fish and Wildlife Service (USFWS), 1979. Final Rule to List the Dwarf Bear-poppy as an Endangered Species. 44 Federal Register 64250 64252, November 6, 1979.

USFWS, 1982, United States Fish and Wildlife Service (USFWS), 1982. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 47 Federal Register 58454 58460, December 30, 1982.

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USFWS, 1990a, United States Fish and Wildlife Service (USFWS), 1990. Final Rule to List the Mojave Population of Desert Tortoise as a Threatened Species. 55 Federal Register 12178 12191, April 2, 1990.

USFWS, 1991, United States Fish and Wildlife Service (USFWS), 1991. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 56 Federal Register 58804 58836, November 21, 1991.

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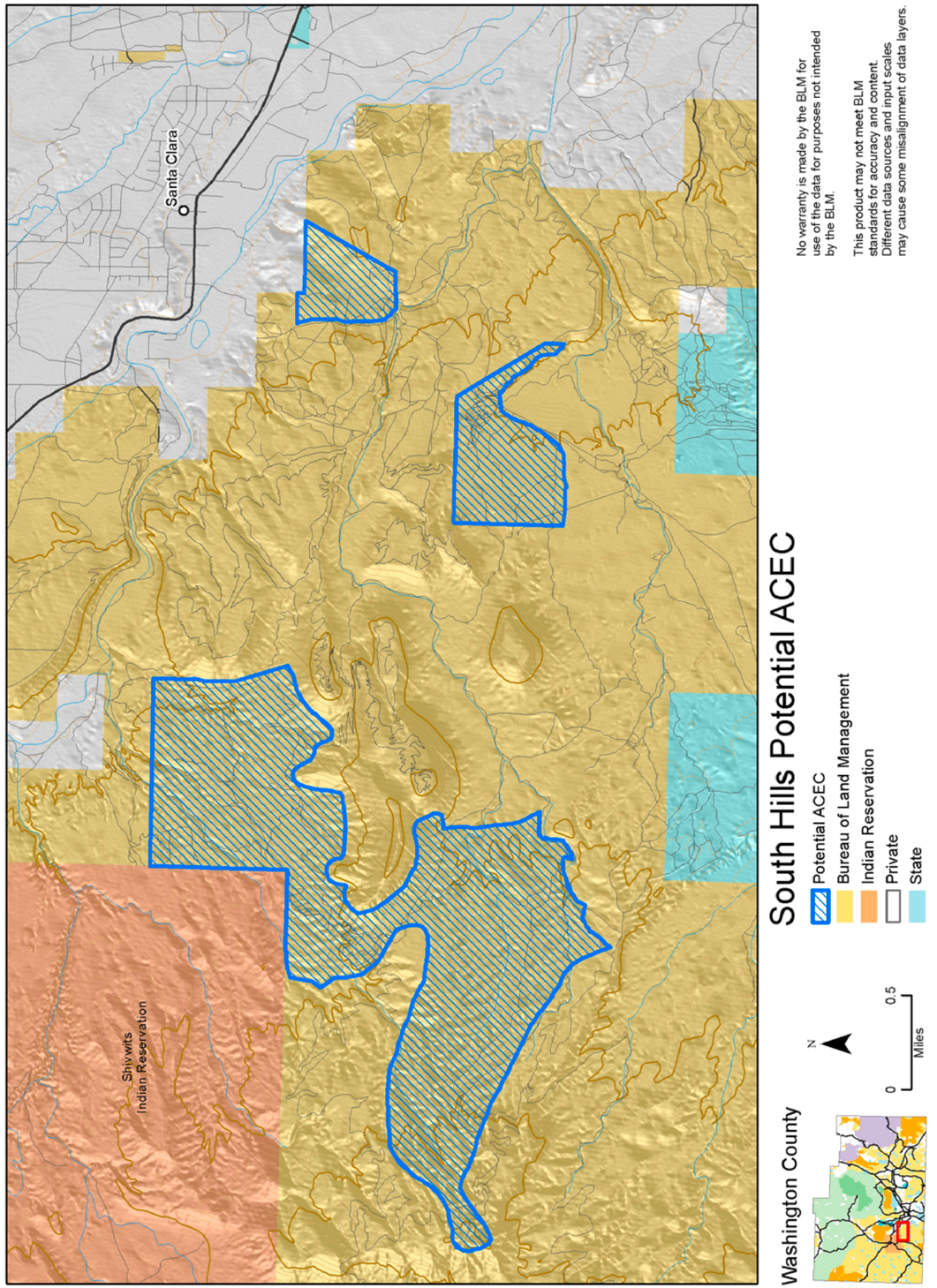


4.12 State Line

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: State Line

Location of Potential ACEC: South of St. George, near the Arizona border

Nominations included in the Potential ACEC: UNPS Holmgren Milkvetch, UNPS Little Round Valley, USFWS Lower Virgin River Expansion, VRLP Virgin River and Tributaries, WS Beaver Dam

Acreage: 1,411 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: Holmgren Milkvetch (Federally Endangered Species) (USFWS 2001b, USFWS 2006a, USFWS 2006b), and Gierisch Globemallow (Federal Candidate Species, and BLM Sensitive Species) (USFWS 2008e, BLM 2011b).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of Threatened, Endangered, Candidate and BLM sensitive species: Holmgren Milkvetch and Gierisch Globemallow.

Holmgren Milkvetch (*Astragalus ampullarioides*) was listed federally endangered on September 28, 2001 and presently occurs in Washington County, Utah, and Mohave County, Arizona (USFWS 2001b). Critical Habitat for Holmgren milkvetch was designated on December 27, 2006 (USFWS 2006b), and a recovery plan was developed for the Holmgren milkvetch in 2006 (USFWS 2006a). Holmgren milkvetch is an extremely short-lived perennial herb with low survivorship from germinated seedling to reproductive adult. Holmgren milkvetch grows on shallow, sparsely vegetated soils derived primarily from the Virgin limestone member of the Moenkopi Formation.

Gierisch globemallow (*Sphaeralcea gierischii*) was listed as a federal candidate species under Candidate Notice of Review on December 10, 2008 (USFWS 2008e). In this notice, habitat was identified on BLM lands in Utah, with the principle threat of OHV use. In April 2005, Atwood and Welsh (2005) conducted a survey on Gierisch globemallow populations in Washington County, Utah for future planning efforts by BLM. The Utah population of Gierisch globemallow ranges from the Utah Stateline (north of the Black Rock Interstate 15 Exit) north to the Virgin River

between Big and Little Round Valleys. In August of 2012 the USFWS published a federal register notice proposing to list Gierisch globemallow as an endangered species and to designate critical habitat in Utah and on the Arizona Strip.

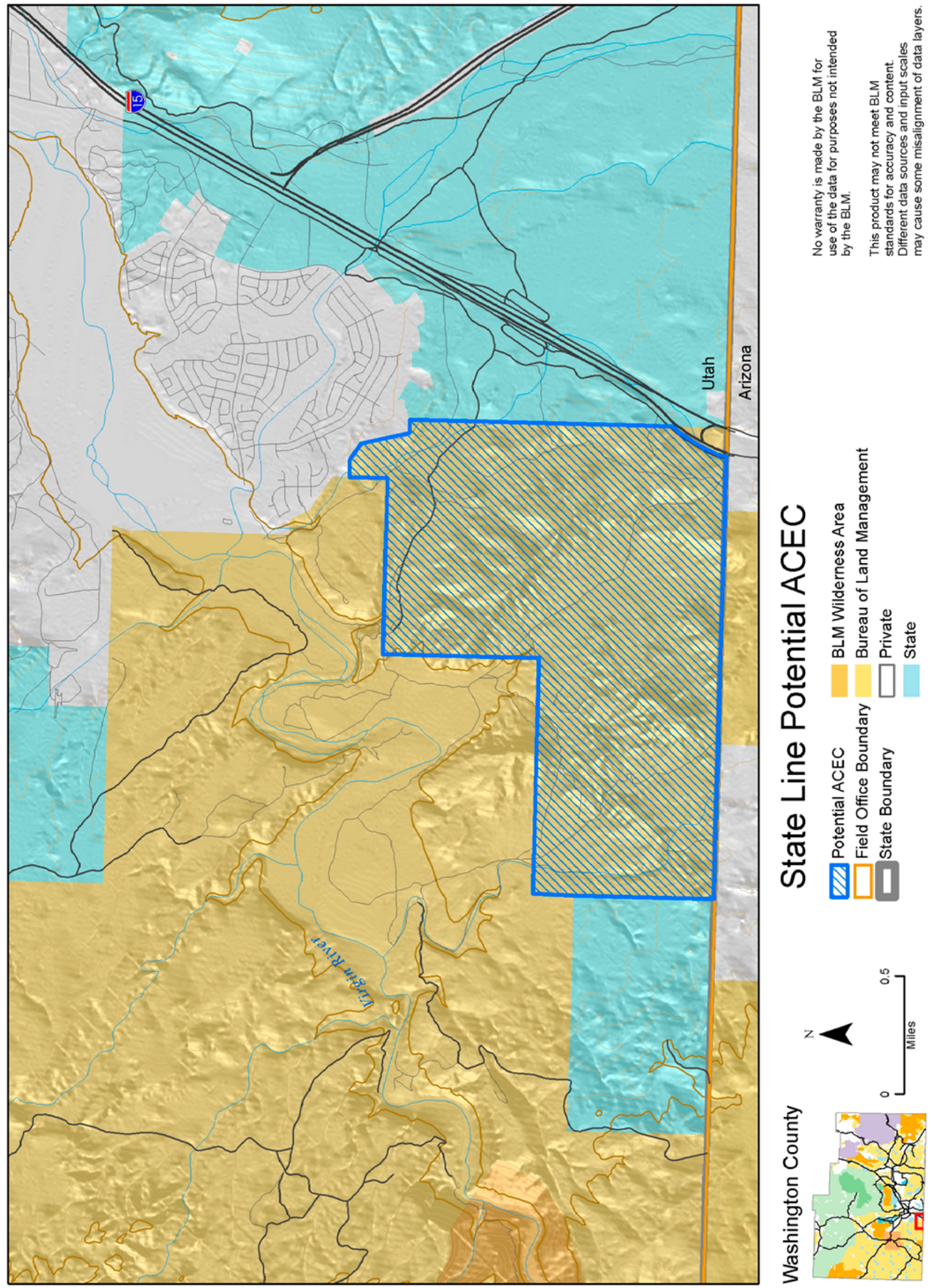
References:

USFWS, 2001b, United States Fish and Wildlife Service (USFWS), 2001. Final Rule to List the Holmgren Milkvetch and the Shivwits Milkvetch. 66 Federal Register 49560 49567, September 28,

USFWS, 2006a, United States Fish and Wildlife Service (USFWS), 2006. Recovery Plan for the Holmgren Milkvetch and Shivwits Milkvetch, September 2006.

USFWS, 2006b, United States Fish and Wildlife Service (USFWS), 2006. Final Designation of Critical Habitat for Holmgren Milkvetch and Shivwits Milkvetch. 71 Federal Register 77971 78012, December 27, 2006.

USFWS, 2008e, United States Fish and Wildlife Service (USFWS), 2008. Gierisch Globemallow Candidate Species Notice of Review. 73 Federal Register 75175 75244, December 10, 2008.



4.13 Virgin River

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: Virgin River

Location of Potential ACEC: Virgin River isolated parcels in Washington County

Nominations included in the Potential ACEC: CFDF Virgin River, VRLP Virgin River and Tributaries

Acreage: 245 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: Bald Eagle (BLM Sensitive Species) (BLM 2011b), Desert Sucker (Addley and Hardy 1993) (BLM 2011b, UDNR 2002, and UDWR 2010a), Flannelmouth Sucker (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2004, and UDWR 2010a), Virgin Spinedace (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2002, UDWR 2010a), and riparian values.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of BLM sensitive species: Desert Sucker, Flannelmouth Sucker, Virgin Spinedace, and riparian values.

The Desert Sucker (*Catostomus clarkia*), is native to parts of the Colorado River system of the southwestern United States and northern Mexico. In Utah, the species occurs only in the Virgin River system in the southwestern corner of the state. Desert suckers are benthic (bottom dwelling) fish that primarily eat algae, although insects and other invertebrates are also occasionally consumed. Members of the species almost always occur in streams, where spawning occurs in riffles during the winter and spring (UDWR 2010b).

The Flannelmouth Sucker, (*Catostomus latipinnis*), is native to the Colorado River system of the western United States and northern Mexico. In Utah, the species occurs in the main-stem Colorado River, as well as in many of the Colorado River's large tributaries (Virgin River, and tributaries here in Washington County). Flannelmouth suckers are usually absent from impoundments. In recent times, Utah Flannelmouth sucker populations have been reduced in both numbers and distribution, primarily due to flow alteration, habitat loss/alteration, and the introduction of nonnative fishes. Flannelmouth suckers are benthic (bottom dwelling) fish that primarily eat algae, although invertebrates and many types of plant matter are also consumed. The species spawns in streams over gravelly areas during the spring and early summer. Flannelmouth suckers prefer large rivers, where they are often found in deep pools of slow-flowing, low gradient reaches (UDWR 2010b).

The Virgin Spinedace (*Lepidomeda mollispinis*) is a small minnow originally found throughout the Virgin River system of Utah, Nevada, and Arizona. However, due to dewatering, habitat fragmentation, flow alteration, and the introduction of nonnative fishes, Virgin spinedace populations declined in the late 1980's and 1990's, and the species was missing in portions of its historic range. Efforts are now underway to restore Virgin spinedace populations to acceptable levels. On May 18, 1994, the Virgin spinedace was proposed for listing as a Threatened Species (USFWS 1994b), and April 5, 1995, USFWS proposed designation of Critical Habitat (USFWS 1995b) under the Endangered Species Act. Later in 1995, the Virgin Spinedace Conservation Agreement was executed by state, local and federal agencies to provide enhancement and protection to the Virgin spinedace and habitat in an effort to remove threats, and thereby preclude the need for listing of this species (UDWR 2002). Implementation of the Virgin Spinedace Conservation Agreement has been very successful, and a number of beneficial actions have been completed for the protection and enhancement of this fish. The following, along with many other beneficial actions have been implemented: 1) extensive monitoring program, 2) re-occupation of historic habitats through establishment of in-stream flows, 3) connectivity of habits through removal of barriers and diversions, and 4) removal of predation, and competition from non-native species (UDWR 2008).

Virgin spinedace are opportunistic feeders, eating insects, insect larvae, other invertebrates, and plant matter. The species spawns during spring and late summer, usually during periods of high flows. Virgin spinedace prefer the clear, slow-moving water of creeks and small streams, and are usually found in areas with abundant cover. The subspecies of Virgin spinedace that occurs in Utah is *Lepidomeda mollispinis mollispinis* (UDWR 2010b).

Nominated area contains important riparian habitat (BLM 2010e), which support populations of BLM Sensitive Species.

The following species do not meet the importance criteria: Bald Eagle (BLM Sensitive Species) (BLM 2011b, USFWS, 2007), nominated area was found to be of local importance only.

References:

Addley and Hardy, 1993, Addley, R.C., T.B. Hardy. 1993. The Current Distribution and Status of Spinedace in the Virgin River Basin, 1993.

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UDWR, 2008, Utah Division of Wildlife Resources (UDWR), 2008. Virgin Spinedace Conservation Agreement and Strategy, 2000 to 2008 Assessment, December 2008.

UDWR, 2010a, Utah Division of Wildlife Resources (UDWR), 2009. Final Virgin Spinedace Population Monitoring Summary, 1994-2009, Publication # 10-04, Utah Division of Wildlife Resources, Salt Lake City, Utah, February, 2010.

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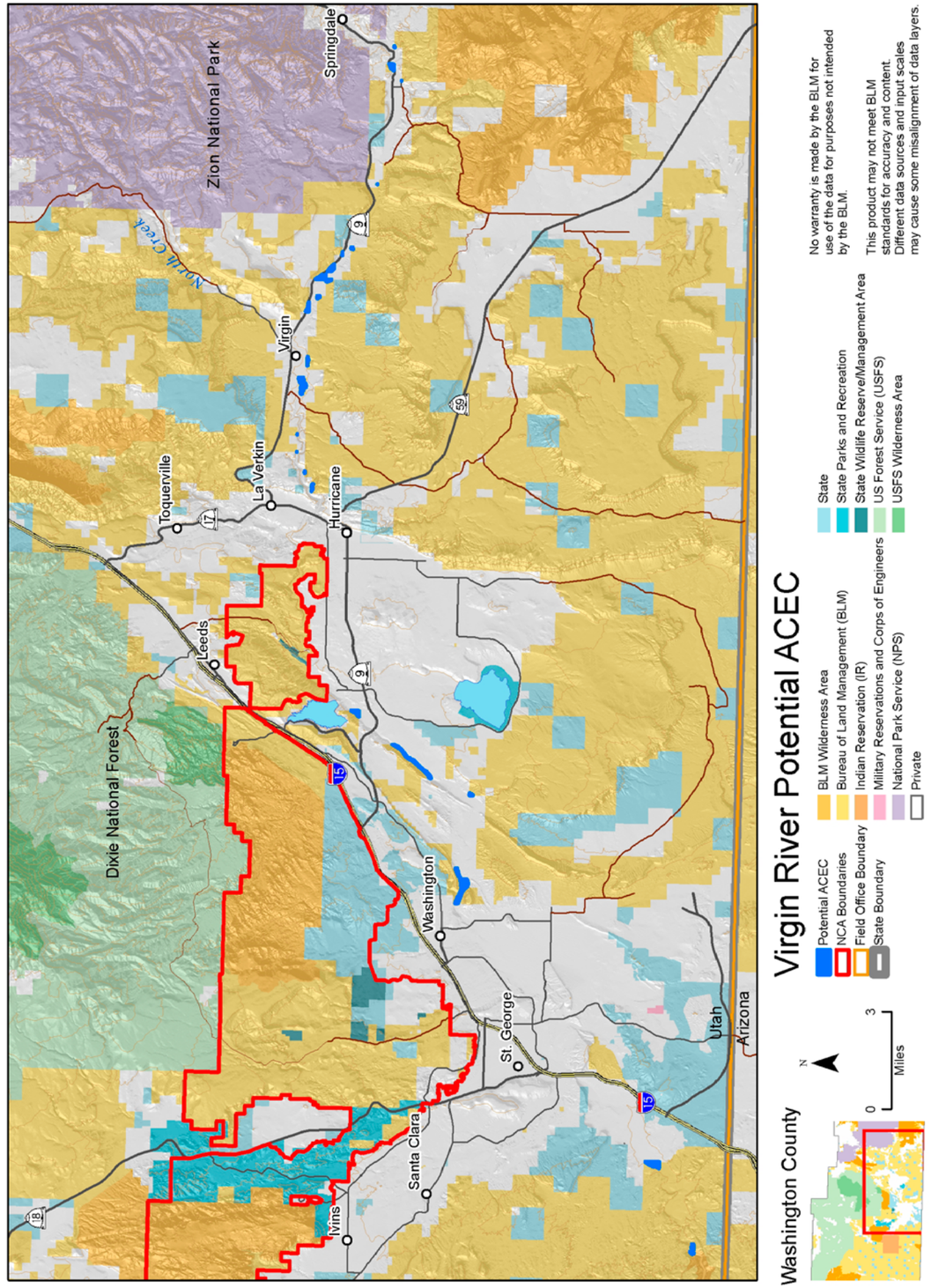
USFWS, 2007, United States Fish and Wildlife Service (USFWS), 2007. Final Rule to Delist the Bald Eagle in the Lower 48 States From the Federal List of Endangered and Threatened Wildlife. 72 Federal Register 37345 37375, July 9, 2007.



4.14 Webb Hill

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: Webb Hill

Location of Potential ACEC: Webb Hill near Brigham Road in St. George, UT

Nominations included in the Potential ACEC: USFWS Webb Hill, VRLP Webb Hill

Acreage: 520 Acres

Relevance Criteria: Does the area contain one or more of the following:

- A significant historic, cultural, or scenic value?
- A fish and wildlife resource?
- A natural process or system?
- A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The potential ACEC meets the relevance criteria based on the following species: Dwarf Bear-poppy (Federally Endangered Species) (USFWS 1979b, USFWS 1985a).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the potential ACEC meets the importance criteria based on the presence of the Endangered species: Dwarf Bear Poppy.

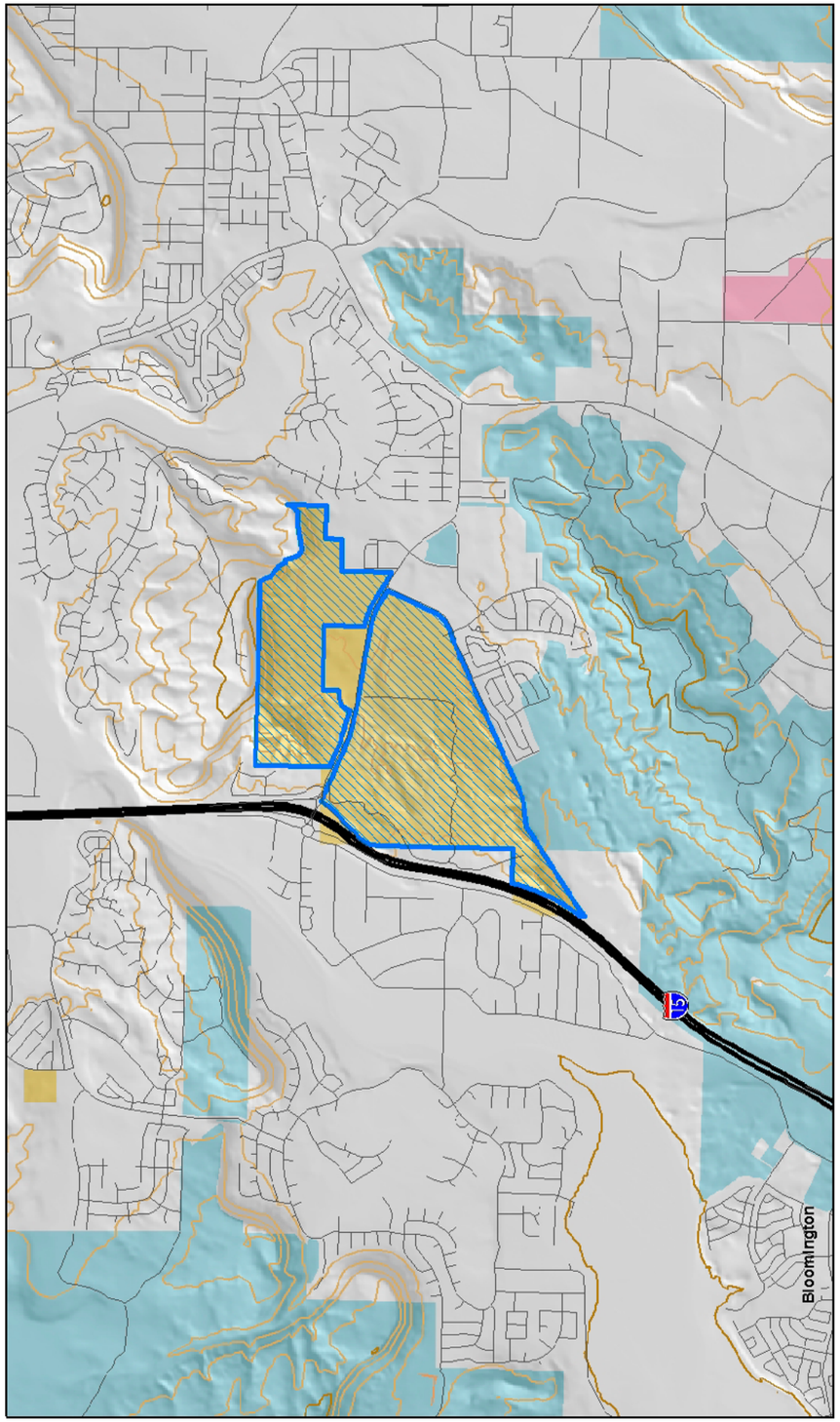
The Dwarf Bear-Poppy (*Arctomecon humilis*) was federally listed endangered on November 6, 1979 (USFWS 1979b). In 1985, a recovery plan was developed for the dwarf bear-poppy (USFWS 1985a). Then in 1986, BLM developed a habitat management plan for this endangered plant (BLM 1986). The dwarf bear-poppy is a perennial herb endemic to gypsum soils derived from Moenkopi Formation (USFWS, 1985a).This plant found only in Washington County, Utah ranges from north of Wittwer Canyon south to White Hills and Val Spring Wash on the west to Shinob Kibe, Warner Ridge on the east (USFWS 1985a). Its habitat consists of rolling low hills and ridge tops composed of the gypsiferous clay soils, and the plant is found on barren, open sites in warm desert shrub communities where it is often associated with white bursage (*Ambrosia dumosa*), Torry ephedra (*Ephedra torreyi*), shadescale (*Atriplex confertifolia)*, Mohave woodyaster (*Xylorhiza tortifolia*), and indigo bush (*Dalea fremontii*) (UNHP 2005).

References:

BLM, 1986, United States Bureau of Land Management (BLM), 1986. Dwarf Bear-poppy Habitat Management Plan, Cedar City District, October 1986.

USFWS, 1979b, United States Fish and Wildlife Service (USFWS), 1979. Final Rule to List the Dwarf Bear-poppy as an Endangered Species. 44 Federal Register 64250 64252, November 6, 1979.

USFWS, 1985a, United States Fish and Wildlife Service (USFWS), 1985. Dwarf Bear-poppy Recovery Plan, December 1985.



4.15 Red Cliffs

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Potential ACEC: Red Cliffs

Location of Potential ACEC: Red Cliffs NCA, north of St. George, UT

Nominations included in the Proposed ACEC: CFDF Virgin River, J.E. Deacon Upper Virgin River, VRLP Virgin River and Tributaries, WWP Red Cliffs

Acreage: 44,824 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The nominated ACEC meets the relevance criteria based on the following species: Desert Tortoise (Federally Threatened Species) (USFWS 1994a, USFWS 1990a, USFWS 1994c), Gila monsters (BLM Sensitive, and Federally Petitioned Species) (BLM 2011b, USFWS 1982, USFWS 1985b, USFWS 1991, USFWS 1994d), Bald Eagle (BLM Sensitive Species) (BLM 2011b), Golden Eagle (BLM 1993) and this species is federally protected under the Eagle Act, Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b), Virgin River chub (Federally Endangered Species) (USFWS 2000,USFWS 1989b, USFWS 1995c, and USFWS 2008a), Woundfin (Federally Endangered Species) (USFWS 2000, USFWS 1970, USFWS 1995c, USFWS 2008a), Desert Sucker (BLM Sensitive Species) (Addley and Hardy 1993) (BLM 2011b, UDNR 2002, and UDWR 2010a), Flannel-mouth Sucker (BLM Sensitive Species) (Addley and Hardy 1993) (BLM 2011b, UDNR 2002, and UDWR 2010a), Virgin Spinedace (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2002, UDWR 2010a), and riparian values.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the proposed ACEC meets the importance criteria based on the presence of Threatened, Endangered, and BLM sensitive species: Desert Tortoise, Virgin River chub, Woundfin, Desert Sucker, Flannelmouth Sucker, Virgin Spinedace, and riparian values.

Desert Tortoise (*Gopherus agassizii*) are long-lived herbivores that are active above-ground primarily during the spring, early summer, and fall months. The remainder of the year they spend in burrows, escaping the extreme weather conditions of the desert. The Red Cliffs National Conservation Area (NCA) is at the extreme northeastern edge of the species' range in the area of St. George (USFWS 1993b). It is characterized by transitional vegetation represented by sagebrush (*Artemisia filifolia*), black brush (*Coleogyne ramosissima*), and Utah juniper (*Juniperus osteosperma*).

Here, desert tortoises live in a complex and rugged topography consisting of rock caves, canyons, mesas, sand dunes, and sandstone outcrops (USFWS 1993b). Within these two recovery units, desert tortoises potentially can survive and reproduce where their basic habitat requirements are met. These requirements include a sufficient amount and quality of forage species, shelter sites for protection from predators and environmental extremes, suitable substrates for burrowing, nesting, and overwintering, various plants for shelter and adequate area for movement, dispersal, and gene flow (USFWS 1993b). The desert tortoise is long-lived with a relatively slow rate of reproduction. Animals do not reach sexual maturity until they are 10 to 15 years old. Tortoise populations are probably dependent on years of sufficient and timely precipitation to produce sufficient forage for reproduction and survival. This life history makes a species susceptible to environmental limitations that may affect recruitment of young animals into the population, or survival of breeding adults before replacement (USFWS 1990a).

Virgin River chub (*Gila seminude*) is listed endangered (USFWS 1989b) and presently occurs in the Virgin River main-stem from Pah Tempe Springs downstream to the Mesquite Diversion (USFWS 1995c). Critical Habitat for Virgin River chub was designated on January 26, 2000 (USFWS 2000) and includes the main-stem Virgin River and its 100 year floodplain, extending from the confluence of LaVerkin Creek, Utah to Halfway Wash, Nevada. The Virgin River chub is a silvery, medium sized minnow that averages about 8 inches in total length but can grow to a length of 18 inches. Virgin River chubs are most often associated with deep runs or pool habitats of slow to moderate velocities with large boulders or in-stream cover, such as root snags (USFWS, 1995c). The Virgin River chub has declined in numbers due to the cumulative effects of dewatering from numerous diversion projects, proliferation of nonnative fish, and alterations of natural flows, temperature, and sediment regimes (USFWS 2000).

Woundfin (*Plagopterus argentissimus*) is listed endangered (USFWS 1970) and presently occurs from Pah Tempe Springs on the main-stem Virgin River and the lower portion of LaVerkin Creek in Utah, downstream to Lake Mead, Nevada (USFWS 1995c). Critical Habitat for Woundfin was designated on January 26, 2000 (USFWS 2000) and includes the main-stem Virgin River and its 100 year floodplain, extending from the confluence of LaVerkin Creek, Utah to Halfway Wash, Nevada. Adult and juvenile Woundfin inhabit runs and quiet waters adjacent to riffles with sand and sand/gravel substrates. The Woundfin is a streamlined, silvery minnow with a flat head and a conspicuous, sharp dorsal spine, from which its common name was derived. The diet of Woundfin is quite varied, consisting of insects, insect larvae, other invertebrates, algae, and detritus. The Woundfin has declined in numbers due to the cumulative effects of dewatering from numerous diversion projects, proliferation of nonnative fish, and alterations of natural flows, temperature, and sediment regimes (USFWS 2000).

The Desert Sucker (*Catostomus clarkia*) is native to parts of the Colorado River system of the southwestern United States and northern Mexico. In Utah, the species occurs only in the Virgin River system in the southwestern corner of the state. Desert suckers are benthic (bottom dwelling) fish that primarily eat algae, although insects and other invertebrates are also occasionally consumed. Members of the species almost always occur in streams, where spawning occurs in riffles during the winter and spring (UDWR 2010b).

The Flannelmouth Sucker (*Catostomus latipinnis*) is native to the Colorado River system of the western United States and northern Mexico. In Utah, the species occurs in the main-stem Colorado River, as well as in many of the Colorado River's large tributaries (Virgin River, and tributaries here in Washington County). Flannelmouth suckers are usually absent from impoundments. In recent times, Utah Flannelmouth sucker populations have been reduced in both numbers and distribution, primarily due to flow alteration, habitat loss/alteration, and the introduction of nonnative fishes. Flannelmouth suckers are benthic (bottom dwelling) fish that primarily eat algae, although invertebrates and many types of plant matter are also consumed. The species spawns in streams over gravelly areas during the spring and early summer. Flannelmouth suckers prefer large rivers, where they are often found in deep pools of slow-flowing, low gradient reaches (UDWR 2010b).

The Virgin Spinedace (*Lepidomeda mollispinis*) is a small minnow originally found throughout the Virgin River system of Utah, Nevada, and Arizona. However, due to dewatering, habitat fragmentation, flow alteration, and the introduction of nonnative fishes, Virgin spinedace populations declined in the late 1980's and 1990's, and the species was missing in portions of its historic range. Efforts are now underway to restore Virgin spinedace populations to acceptable levels. On May 18, 1994, the Virgin spinedace was proposed for listing as a Threatened Species (USFWS 1994b),

and April 5, 1995, USFWS proposed designation of Critical Habitat (USFWS 1995b) under the Endangered Species Act. Later in 1995, the Virgin Spinedace Conservation Agreement was executed by state, local and federal agencies to provide enhancement and protection to the Virgin spinedace and habitat in an effort to remove threats, and thereby preclude the need for listing of this species (UDWR 2002). Implementation of the Virgin Spinedace Conservation Agreement has been very successful, and a number of beneficial actions have been completed for the protection and enhancement of this fish. The following, along with many other beneficial actions have been implemented: 1) extensive monitoring program, 2) re-occupation of historic habitats through establishment of in-stream flows, 3) connectivity of habits through removal of barriers and diversions, and 4) removal of predation, and competition from non-native species (UDWR 2008).

Virgin spinedace are opportunistic feeders, eating insects, insect larvae, other invertebrates, and plant matter. The species spawns during spring and late summer, usually during periods of high flows. Virgin spinedace prefer the clear, slow-moving water of creeks and small streams, and are usually found in areas with abundant cover. The subspecies of Virgin spinedace that occurs in Utah is *Lepidomeda mollispinis mollispinis* (UDWR 2010b).

Nominated area contains important riparian habitat (BLM 2010e), which support populations of BLM Sensitive Species.

The following species do not meet the importance criteria: Bald Eagle (BLM Sensitive Species) (BLM 2011b, USFWS, 2007), Golden Eagle (BLM 1993), Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species) (USFWS 2008b, UDWR 2007b). Nominated area contains habitat for several species of Birds of Conservation Concern (Neotropical Migratory Birds and Raptor Species). Nominated area was found to be of local importance only.

Gila Monster (*Heloderma suspectum*) On January 22, 2010, the Gila monster in Utah was petitioned for listing as an endangered species by WildEarth Guardians and Daniel Beck (WildEarth Guardians and Beck 2010) on the basis that Utah population was believed to be a genetically distinct population. In June of 2011, the USFWS issued a finding that declined to list Utah populations of the Gila monster (USFWS 2011).

The BLM ID team evaluation found that the Desert Tortoise, Virgin River chub, Woundfin, Desert Sucker, Flannelmouth Sucker, Virgin Spinedace meet the relevance and importance based on the following: Desert Tortoise, Virgin River chub, Woundfin, Desert Sucker, Flannelmouth Sucker, Virgin Spinedace are federally listed endangered, and BLM Sensitive species that occupy habitat with a limited distribution in Washington County, Utah. They are by definition a rare, fragile, and sensitive resource of more than local significance and are considered vulnerable to adverse change.

References:

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USFWS, 1985b, United States Fish and Wildlife Service (USFWS), 1985. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 50 Federal Register 37958 37967, September 18, 1985.

USFWS, 1989b, United States Fish and Wildlife Service (USFWS), 1989. Final Rule to List the Virgin River Chub as an Endangered Species. 54 Federal Register 35305 35311, August 24, 1989.

USFWS, 1990a, United States Fish and Wildlife Service (USFWS), 1990. Final Rule to List the Mojave Population of Desert Tortoise as a Threatened Species. 55 Federal Register 12178 12191, April 2, 1990.

USFWS, 1991, United States Fish and Wildlife Service (USFWS), 1991. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 56 Federal Register 58804 58836, November 21, 1991.

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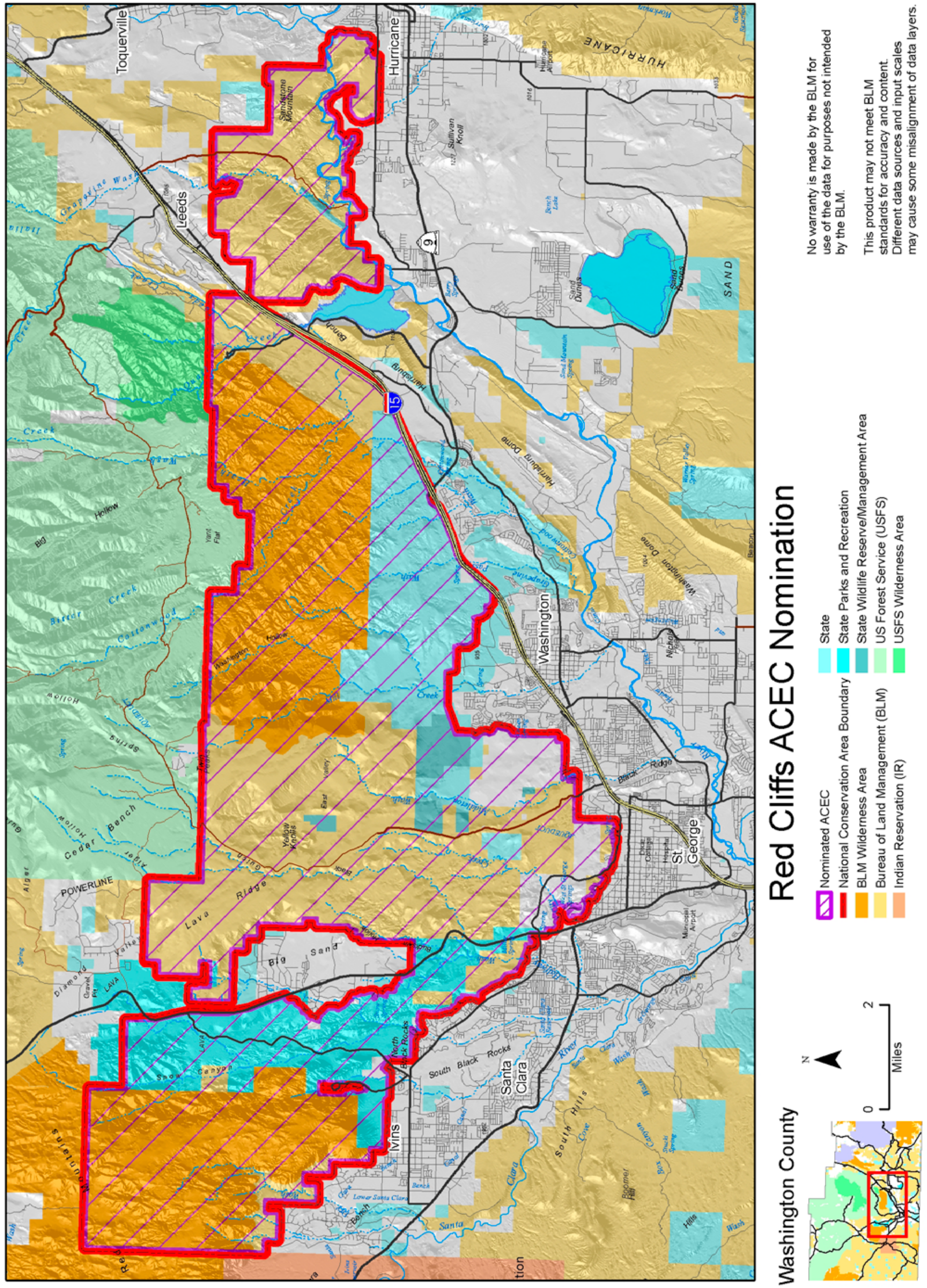


4.16 CFDF Gunlock-Square Top

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: CFDF Gunlock-Square Top

Location of Nominated ACEC: Western Washington County, west of the Santa Clara River

Acreage: 35,365 Acres

Relevance Criteria: Does the area contain one or more of the following:

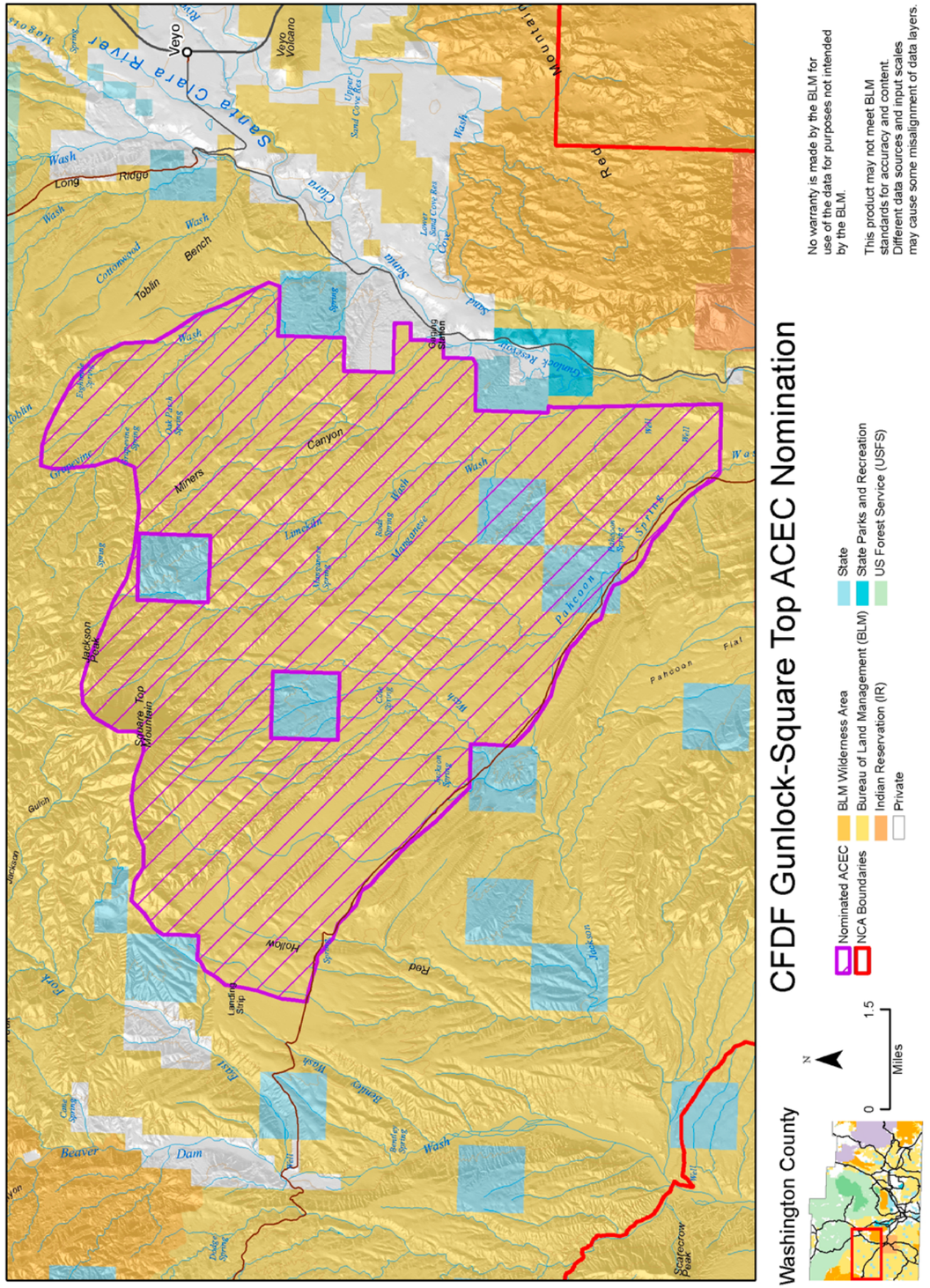
- A significant historic, cultural, or scenic value?
- A fish and wildlife resource?
- A natural process or system?
- A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: Nominated area is used by mule deer when they migrate between summer and winter range, and as winter range, and meets the relevance criteria based on mule deer habitat. Nominated area does not contain rare, endemic, relic plants or plant community. This nominated ACEC also included cultural resources as a relevant and important value. Due to the specific direction in OPLMA to preserve areas "where biological conservation is a priority", this ACEC process only considers new ACECs that have a biological component or value. Areas nominated for cultural values were not considered at this time, but will be considered when the St. George Field Office Resource Management Plan is revised in the future. Until the St. George Field Office Plan is revised, cultural resources in this area would be protected by the management prescriptions of the RMP, the National Historic Preservation Act and other laws and regulations, and the requirement that any ground disturbing activities would require a Class III level cultural resources inventory.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: Nominated area contains mule deer habitat which was found to be of local importance only.



4.17 Hurricane Cliffs

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: Hurricane Cliffs

Location of Nominated ACEC: Eastern Washington County, southeast of Hurricane, UT

Acreage: 2,178 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The proposed ACEC meets the relevance criteria based on the following species: Golden Eagle nesting occurs (BLM 1993) and this species is federally protected under the Eagle Act, Birds of Conservation Concern (Raptor Species) (USFWS 2008b).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

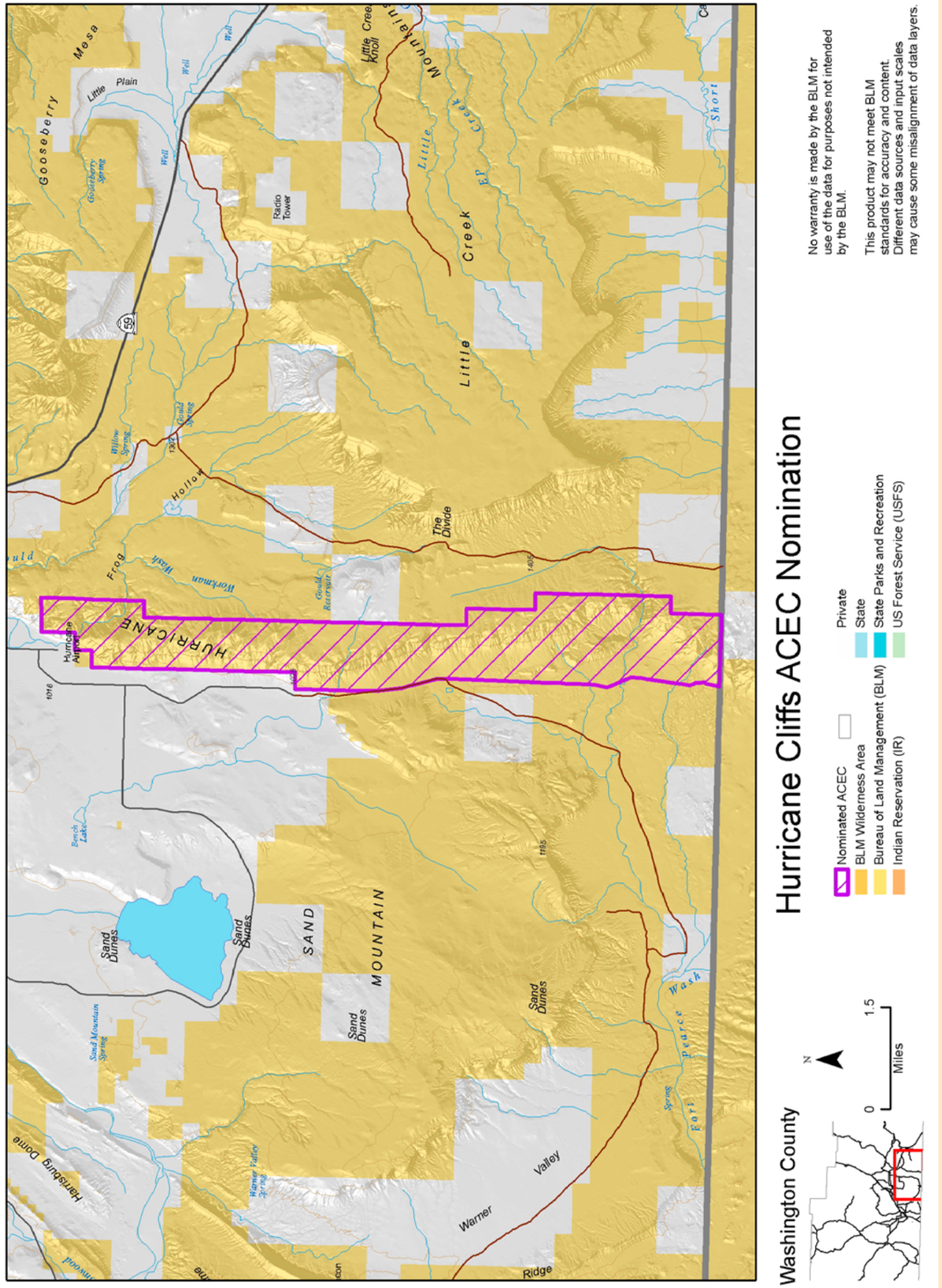
Describe the importance of the value(s) listed above: The area of the nominated ACEC does not meet the importance criteria because the species present do not exceed the level of local significance, nor are they considered fragile, sensitive, rare, irreplaceable, exemplary, unique, or vulnerable to adverse change. While golden eagles are listed in the Birds of Conservation Concern, they are considered locally common in the St. George Field Office. This species is not experiencing declining populations within the planning area.

Nominated area contains habitat for several species of Birds of Conservation Concern (Raptor Species). Nominated area was found to be of local importance only.

References:

BLM, 1993, United States Bureau of Land Management (BLM), 1993. Red Mountain, and Sand Mountain Raptor Routes, Unpublished Studies, St. George Field Office, St. George, Utah, 1993.

USFWS, 2008b, United States Fish and Wildlife Service (USFWS), 2008. Birds of Conservation Concern, U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. Website: <http://www.fws.gov/migratory birds/>, Accessed June 2010.



4.18 SUWA Beaver Dam Mountains

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: SUWA Beaver Dam Mountains

Location of Nominated ACEC: West Mountain Peak portion of Beaver Dam Mountains

Acreage: 19,019 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The nominated ACEC meets the relevance criteria based on the following species: Gila monsters (BLM Sensitive, and Federally Petitioned Species) (BLM 2011b, USFWS 1982, USFWS 1985b, USFWS 1991, USFWS 1994d), Common Chuckwalla, Desert Iguana, Desert Night Lizard, Mojave Rattlesnake, Speckled rattlesnake, Western Threadsnake, and Nevada Willowherb (BLM 2011b).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: Nominated area contains habitat for Gila monsters, Common Chuckwalla, Desert Iguana, Desert Night Lizard, Mojave Rattlesnake, Speckled rattlesnake, and Western Threadsnake populations on the Beaver Dam Slope (BLM Sensitive) (BLM 2011b). These species are found extensively in the Beaver Dam Wash NCA , Arizona, and Nevada and are not more than locally significant.

Nominated area contains habitat for Nevada Willowherb populations in the Beaver Dam Mountains (BLM Sensitive) (BLM 2011b). This plant is also found in similar habitats in Iron and Millard Counties. These plant populations were found to contain no special values, threats, or vulnerabilities.

References:

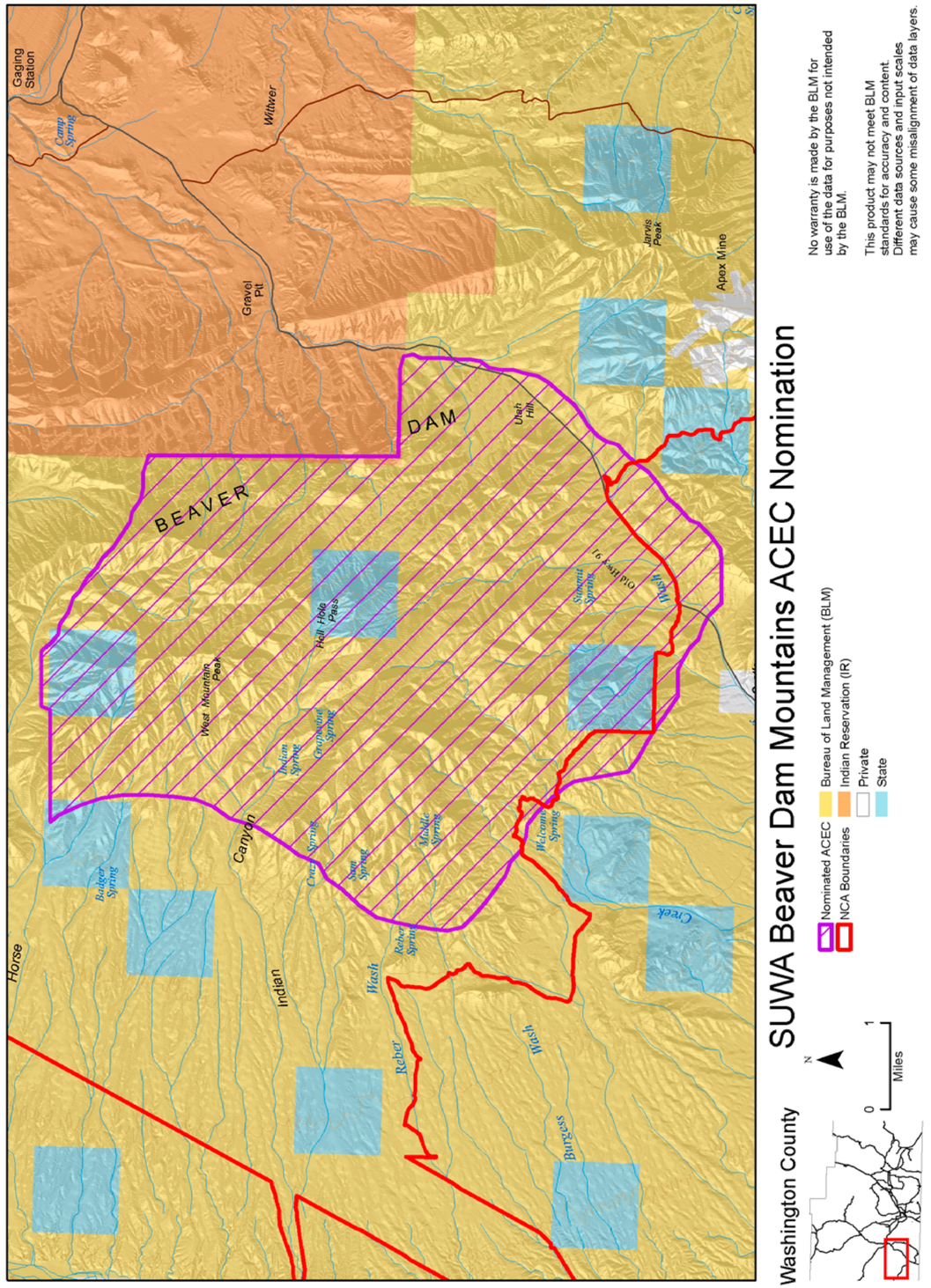
BLM, 2011b, United States Bureau of Land Management (BLM), 2011. Utah State Office, State Directors List of Sensitive Species, February 3, 2011.

USFWS, 1982, United States Fish and Wildlife Service (USFWS), 1982. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 47 Federal Register 58454 58460, December 30, 1982.

USFWS, 1985b, United States Fish and Wildlife Service (USFWS), 1985. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 50 Federal Register 37958 37967, September 18, 1985.

USFWS, 1991, United States Fish and Wildlife Service (USFWS), 1991. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 56 Federal Register 58804 58836, November 21, 1991.

USFWS, 1994d, United States Fish and Wildlife Service (USFWS), 1994. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife, However, information not available to support listing. 59 Federal Register 58982 59028, November 15, 1994.



4.19 SUWA Lower LaVerkin Creek

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: SUWA Lower LaVerkin Creek

Location of Nominated ACEC: Eastern Washington County, LaVerkin Creek and watershed

Acreage: 8,539 Acres

Relevance Criteria: Does the area contain one or more of the following:

- A significant historic, cultural, or scenic value?
- A fish and wildlife resource?
- A natural process or system?
- A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The nominated ACEC meets the relevance criteria based on the following species: Gila monsters (BLM Sensitive, and Federally Petitioned Species) (BLM 2011b, USFWS 1982, USFWS 1985b, USFWS 1991, USFWS 1994d), Common Chuckwalla, Desert Iguana, Desert Night Lizard, Mojave Rattlesnake, Speckled rattlesnake, Western Threadsnake, and Nevada Willowherb (BLM 2011b).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: Nominated area contains habitat for Gila monsters, Common Chuckwalla, Desert Iguana, Desert Night Lizard, Mojave Rattlesnake, Speckled rattlesnake, and Western Threadsnake populations on the Beaver Dam Slope (BLM Sensitive) (BLM 2011b). These species are found extensively in the Beaver Dam Wash NCA , Arizona, and Nevada and are not more than locally significant.

Nominated area contains habitat for Nevada Willowherb populations in the Beaver Dam Mountains (BLM Sensitive) (BLM 2011b). This plant is also found in similar habitats in Iron and Millard Counties. These plant populations were found to contain no special values, threats, or vulnerabilities.

References:

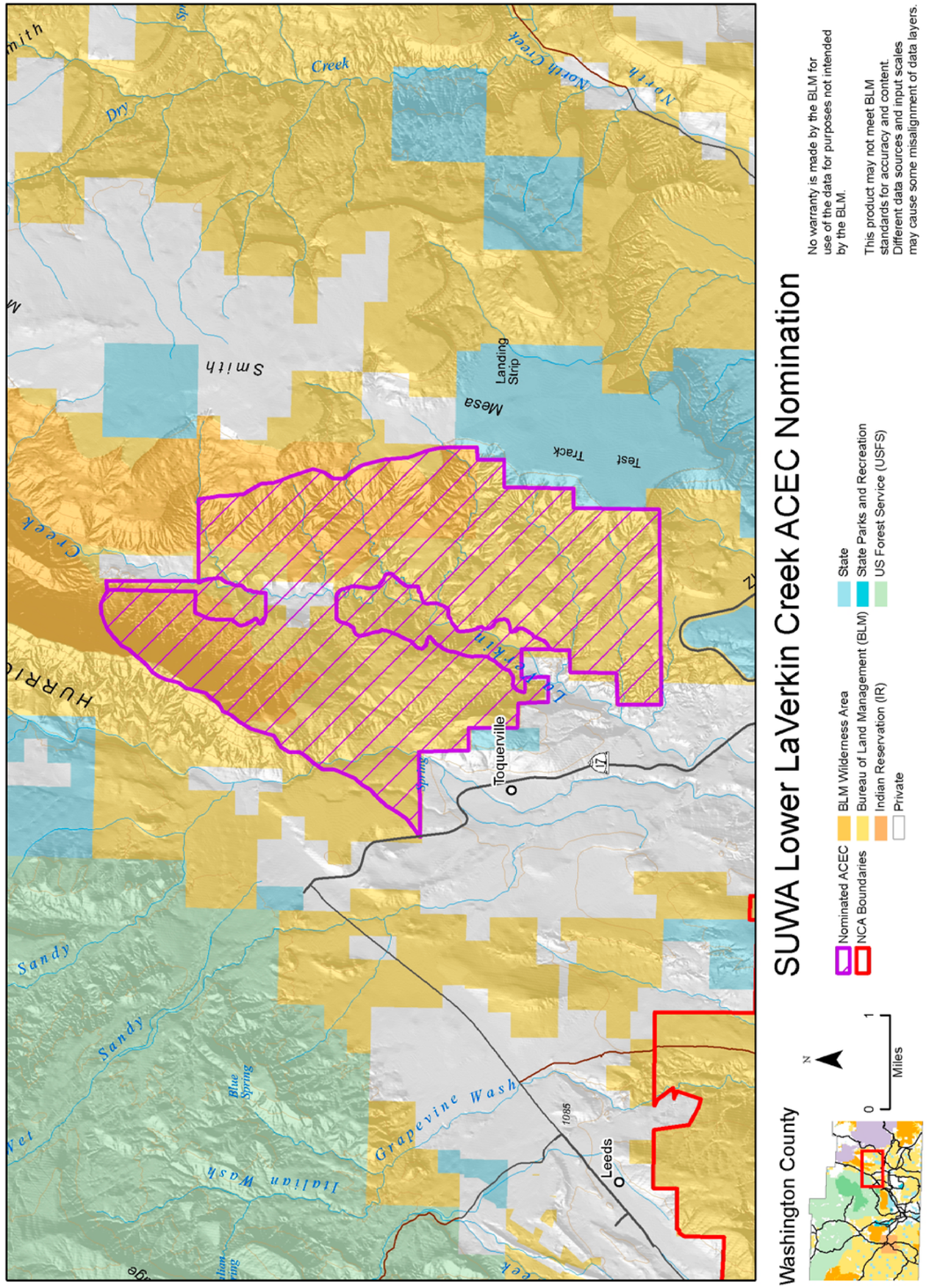
BLM, 2011b, United States Bureau of Land Management (BLM), 2011. Utah State Office, State Directors List of Sensitive Species, February 3, 2011.

USFWS, 1982, United States Fish and Wildlife Service (USFWS), 1982. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 47 Federal Register 58454 58460, December 30, 1982.

USFWS, 1985b, United States Fish and Wildlife Service (USFWS), 1985. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 50 Federal Register 37958 37967, September 18, 1985.

USFWS, 1991, United States Fish and Wildlife Service (USFWS), 1991. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 56 Federal Register 58804 58836, November 21, 1991.

USFWS, 1994d, United States Fish and Wildlife Service (USFWS), 1994. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife, However, information not available to support listing. 59 Federal Register 58982 59028, November 15, 1994.



4.20 SUWA Santa Clara/Gunlock Expansion

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: SUWA Santa Clara/Gunlock Expansion

Location of Nominated ACEC: Santa Clara River below Gunlock Reservoir

Acreage: 5,800 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: Nominated area contains habitat for golden eagle, ferruginous hawk, peregrine falcons, and prairie falcons (Birds of Conservation Concern) (BLM 1993, USFWS 2008b).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

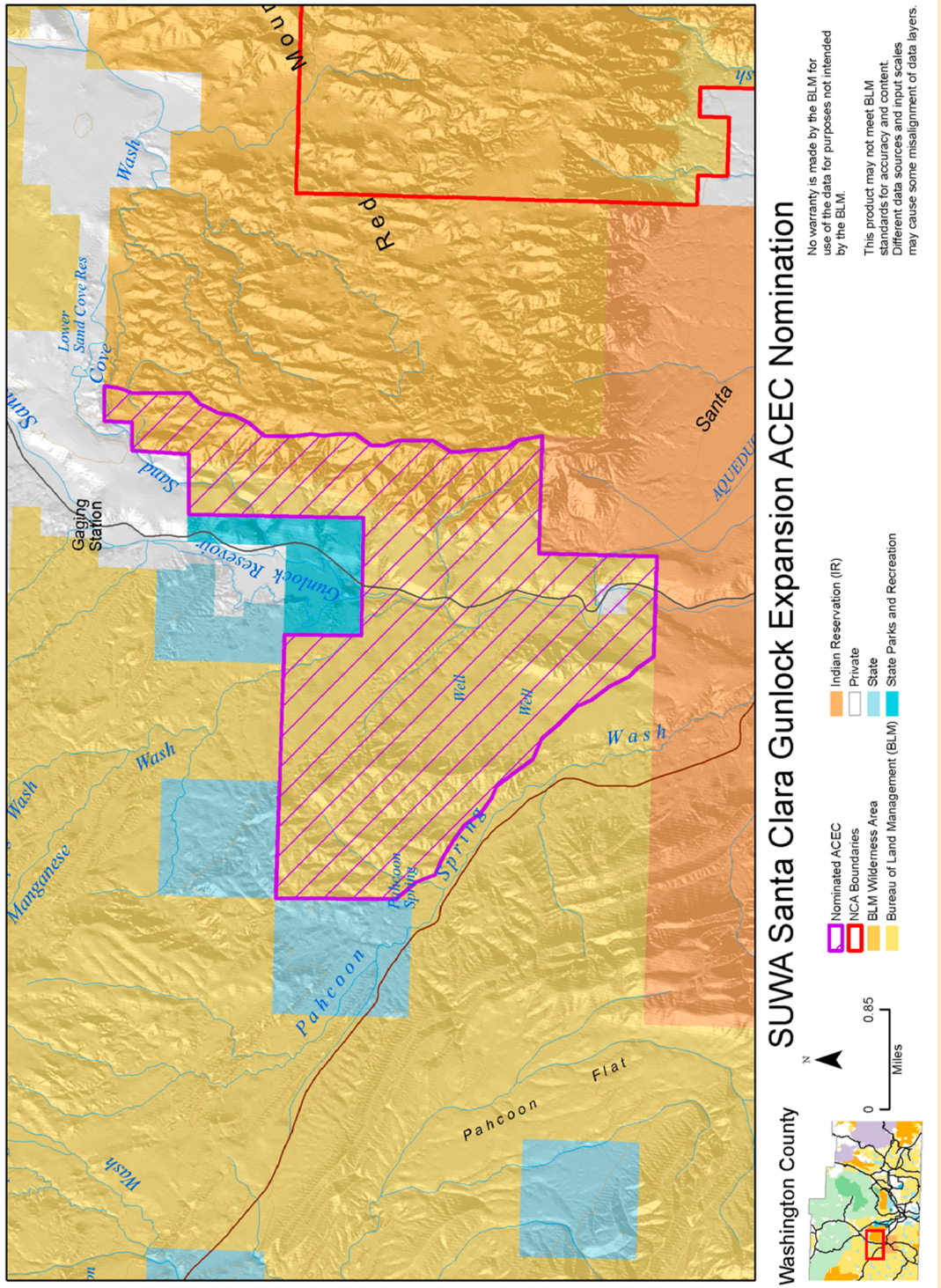
- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: Nominated area contains habitat for golden eagle, ferruginous hawk, peregrine falcons, and prairie falcons (Birds of Conservation Concern) (BLM 1993, USFWS 2008b). However, the nominated area was found to be of local importance only and contains no special values, threats, or vulnerabilities.

References:

BLM, 1993, United States Bureau of Land Management (BLM), 1993. Red Mountain, and Sand Mountain Raptor Routes, Unpublished Studies, St. George Field Office, St. George, Utah, 1993.

USFWS, 2008b, United States Fish and Wildlife Service (USFWS), 2008. Birds of Conservation Concern, U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. Website: <http://www.fws.gov/migratory birds/>, Accessed June 2010.



4.21 SUWA Upper Beaver Dam Wash

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: SUWA Upper Beaver Dam Wash

Location of Nominated ACEC: West and East Forks of the Beaver Dam Wash

Acreage: 65,837 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The nominated ACEC meets the relevance criteria based on the following species: Birds of Conservation Concern (Neotropical Migratory Birds) (e.g. Lucy's warbler, Cassin's finch, juniper titmouse, green-tailed towhee, and Bell's vireo) (USFWS 2008b, UDWR 2007b), golden eagle, ferruginous hawk, peregrine falcons, and prairie falcons (Birds of Conservation Concern) (BLM 1993, USFWS 2008b), desert sucker (Addley and Hardy 1993) (BLM Sensitive Species) (BLM 2011b, UDNR 2002, and UDWR 2010a), Nevada Willowherb (BLM Sensitive) (BLM 2011b) and riparian habitat (BLM 2010e), which support populations of federally listed, and/or BLM Sensitive Species (USFWS 1970, USFWS 1989b, USFWS 1995a).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: Nominated area contains habit for several species (e.g. Lucy's warbler, Cassin's finch, juniper titmouse, green-tailed towhee, and Bell's vireo) of Birds of Conservation Concern (Neotropical Migratory Birds) (USFWS 2008b, UDWR 2007b). Nominated area was found to be of local importance only.

Nominated area (Virgin River drainage and tributaries) contains habitat for golden eagle, ferruginous hawk, peregrine falcons, and prairie falcons (Birds of Conservation Concern) (BLM 1993, USFWS 2008b). Nominated area was found to be of local importance only.

Nominated area (East Fork Beaver Dam Wash) contains habitat (Addley and Hardy 1993) with very low populations of desert sucker (BLM Sensitive Species) (BLM 2011b, UDNR 2002, and UDWR 2010a). Because of poor riparian vegetation, lack of permanent flows, and water quality (temperature), natural habitat potential is very low, so is not more than locally important for desert sucker.

Nominated area (East Fork Beaver Dam Wash) contains poor to fair riparian habitat (BLM 2010e), which support low populations of federally listed, and/or BLM Sensitive Species (USFWS 1970, USFWS 1989b, USFWS 1995a). Because

of limited riparian vegetation, low flows, and water quality (temperature), natural habitat potential for BLM Sensitive Species is very low, so it is not more than locally important.

Nominated area contains habitat for Nevada Willowherb (BLM Sensitive) (BLM 2011b). This plant is also found in similar habitats in Iron and Millard Counties. These plant populations were found to contain no special values, threats, or vulnerabilities.

References:

Addley and Hardy, 1993, Addley, R.C., T.B. Hardy. 1993. The Current Distribution and Status of Spinedace in the Virgin River Basin, 1993.

BLM, 1993, United States Bureau of Land Management (BLM), 1993. Red Mountain, and Sand Mountain Raptor Routes, Unpublished Studies, St. George Field Office, St. George, Utah, 1993.

BLM, 2010e, United States Bureau of Land Management (BLM), 2010. Riparian Studies in Washington County, Utah (BLM Lands), St. George Field Office, St. George, Utah, 2010.

BLM, 2011b, United States Bureau of Land Management (BLM), 2011. Utah State Office, State Directors List of Sensitive Species, February 3, 2011.

UDNR, 2002, Utah Department of Natural Resources (UDNR), 2002. Program Document for the Virgin River Resource Management and Recovery Program, 2002.

UDWR, 2007b, Utah Division of Wildlife Resources (UDWR), 2007. Population Monitoring of Neotropical Migratory Birds in Riparian Habitats of Utah, UDWR Publication Number 07-17, August 15, 2007.

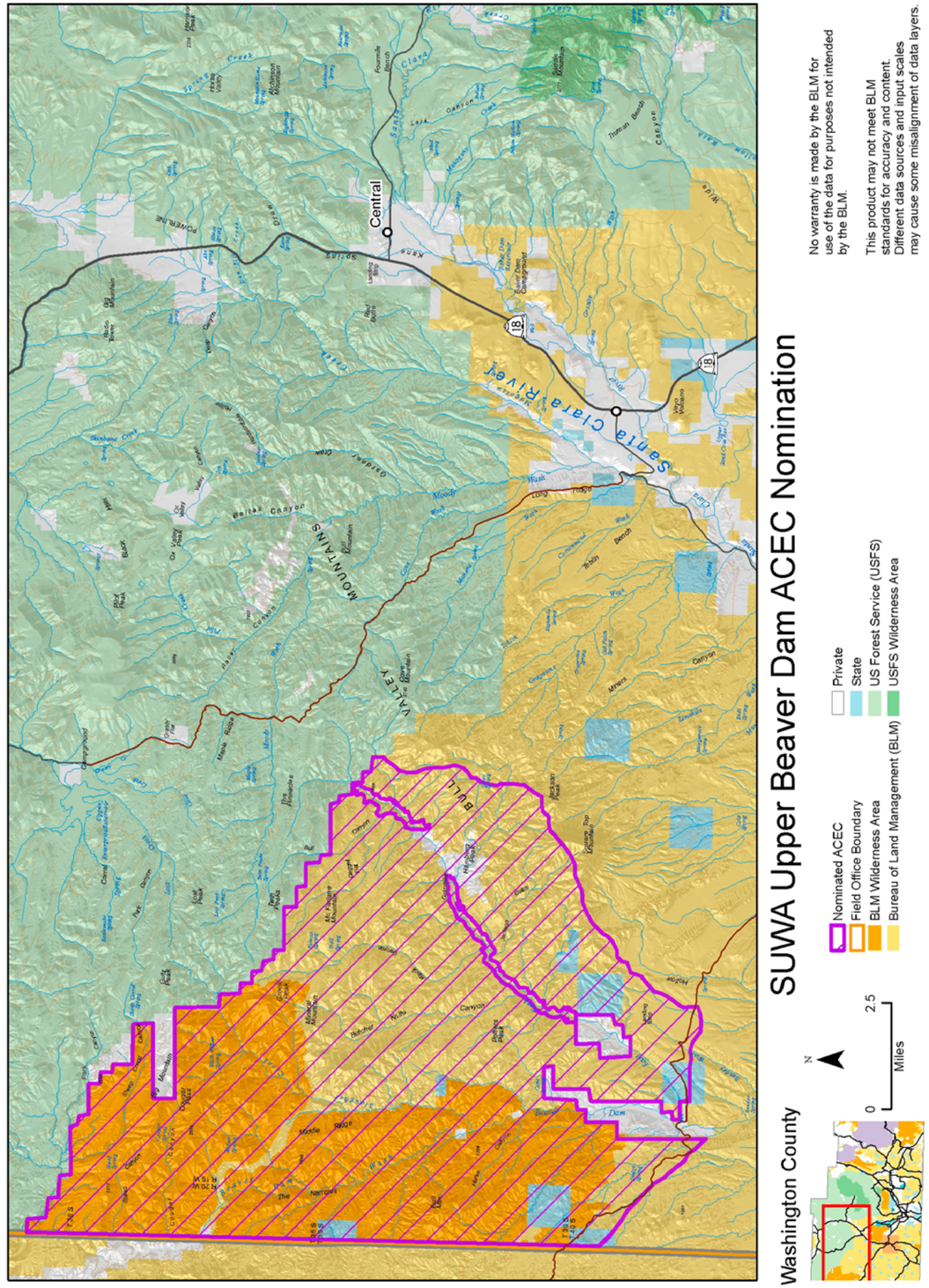
UDWR, 2010a, Utah Division of Wildlife Resources (UDWR), 2009. Final Virgin Spinedace Population Monitoring Summary, 1994-2009, Publication # 10-04, Utah Division of Wildlife Resources, Salt Lake City, Utah, February, 2010.

USFWS, 1970, United States Fish and Wildlife Service (USFWS), 1970. Final Rule to List the Woundfin as an Endangered Species. 35 Federal Register 16047 16048, October 13, 1970.

USFWS, 1989b, United States Fish and Wildlife Service (USFWS), 1989. Final Rule to List the Virgin River Chub as an Endangered Species. 54 Federal Register 35305 35311, August 24, 1989.

USFWS, 1995a, United States Fish and Wildlife Service (USFWS), 1995. Final Rule to List the Southwestern Willow Flycatcher as an Endangered Species. 60 Federal Register 10693 10715, February 27, 1995.

USFWS, 2008b, United States Fish and Wildlife Service (USFWS), 2008. Birds of Conservation Concern, U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. Website: <http://www.fws.gov/migratory birds/>, Accessed June 2010



4.22 USFWS East Fork Beaver Dam Wash

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: USFWS East Fork Beaver Dam Wash

Location of Nominated ACEC: East Fork Beaver Dam Wash

Acreage: 887 Acres

Relevance Criteria: Does the area contain one or more of the following:

- A significant historic, cultural, or scenic value?
- A fish and wildlife resource?
- A natural process or system?
- A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The nominated ACEC meets the relevance criteria based on the following species: Birds of Conservation Concern (Neotropical Migratory Birds) (e.g. Lucy's warbler, Cassin's finch, juniper titmouse, green-tailed towhee, and Bell's vireo) (USFWS 2008b, UDWR 2007b), golden eagle, ferruginous hawk, peregrine falcons, and prairie falcons (Birds of Conservation Concern) (BLM 1993, USFWS 2008b), desert sucker (Addley and Hardy 1993) (BLM Sensitive Species) (BLM 2011b, UDNR 2002, and UDWR 2010a), and riparian habitat (BLM 2010e), which support populations of federally listed, and/or BLM Sensitive Species (USFWS 1970, USFWS 1989b, USFWS 1995a).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: Nominated area contains habit for several species (e.g. Lucy's warbler, Cassin's finch, juniper titmouse, green-tailed towhee, and Bell's vireo) of Birds of Conservation Concern (Neotropical Migratory Birds) (USFWS 2008b, UDWR 2007b). Nominated area was found to be of local importance only.

Nominated area (Virgin River drainage and tributaries) contains habitat for golden eagle, ferruginous hawk, peregrine falcons, and prairie falcons (Birds of Conservation Concern) (BLM 1993, USFWS 2008b). Nominated area was found to be of local importance only.

Nominated area (East Fork Beaver Dam Wash) contains habitat (Addley and Hardy 1993) with very low populations of desert sucker (BLM Sensitive Species) (BLM 2011b, UDNR 2002, and UDWR 2010a). Because of poor riparian vegetation, lack of permanent flows, and water quality (temperature), natural habitat potential is very low, so is not more than locally important for desert sucker.

Nominated area (East Fork Beaver Dam Wash) contains poor to fair riparian habitat (BLM 2010e), which support low populations of federally listed, and/or BLM Sensitive Species (USFWS 1970, USFWS 1989b, USFWS 1995a). Because of limited riparian vegetation, low flows, and water quality (temperature), natural habitat potential for BLM Sensitive Species is very low, so it is not more than locally important.

References:

Addley and Hardy, 1993, Addley, R.C., T.B. Hardy. 1993. The Current Distribution and Status of Spinedace in the Virgin River Basin, 1993.

BLM, 1993, United States Bureau of Land Management (BLM), 1993. Red Mountain, and Sand Mountain Raptor Routes, Unpublished Studies, St. George Field Office, St. George, Utah, 1993.

BLM, 2010e, United States Bureau of Land Management (BLM), 2010. Riparian Studies in Washington County, Utah (BLM Lands), St. George Field Office, St. George, Utah, 2010.

BLM, 2011b, United States Bureau of Land Management (BLM), 2011. Utah State Office, State Directors List of Sensitive Species, February 3, 2011.

UDNR, 2002, Utah Department of Natural Resources (UDNR), 2002. Program Document for the Virgin River Resource Management and Recovery Program, 2002.

UDWR, 2007b, Utah Division of Wildlife Resources (UDWR), 2007. Population Monitoring of Neotropical Migratory Birds in Riparian Habitats of Utah, UDWR Publication Number 07-17, August 15, 2007.

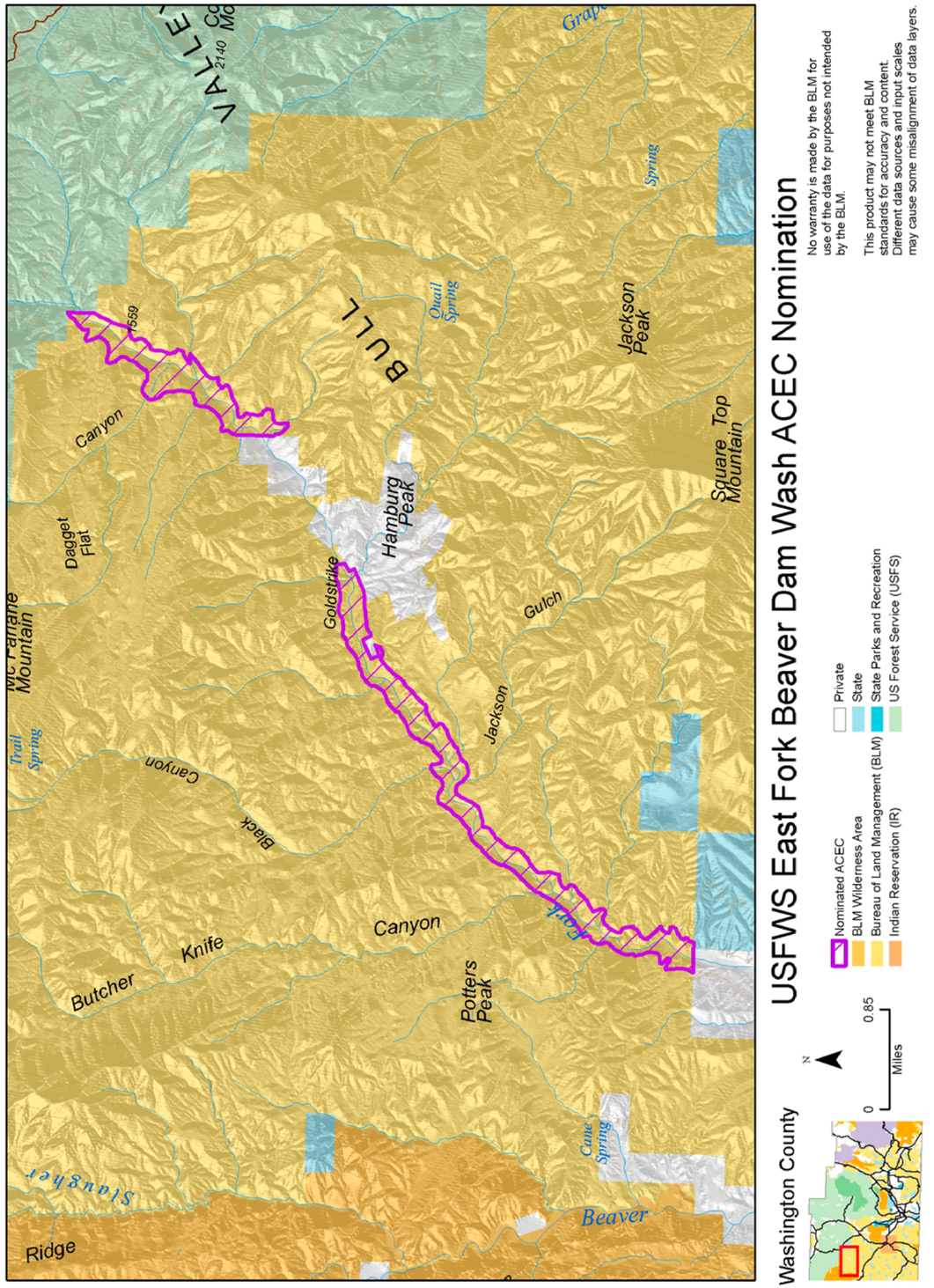
UDWR, 2010a, Utah Division of Wildlife Resources (UDWR), 2009. Final Virgin Spinedace Population Monitoring Summary, 1994-2009, Publication # 10-04, Utah Division of Wildlife Resources, Salt Lake City, Utah, February, 2010.

USFWS, 1970, United States Fish and Wildlife Service (USFWS), 1970. Final Rule to List the Woundfin as an Endangered Species. 35 Federal Register 16047 16048, October 13, 1970.

USFWS, 1989b, United States Fish and Wildlife Service (USFWS), 1989. Final Rule to List the Virgin River Chub as an Endangered Species. 54 Federal Register 35305 35311, August 24, 1989.

USFWS, 1995a, United States Fish and Wildlife Service (USFWS), 1995. Final Rule to List the Southwestern Willow Flycatcher as an Endangered Species. 60 Federal Register 10693 10715, February 27, 1995.

USFWS, 2008b, United States Fish and Wildlife Service (USFWS), 2008. Birds of Conservation Concern, U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. Website: <http://www.fws.gov/migratory birds/>, Accessed June 2010.



4.23 USFWS LaVerkin Creek

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: USFWS LaVerkin Creek

Location of Nominated ACEC: Eastern Washington County, LaVerkin Creek and watershed

Acreage: 1,780 Acres

Relevance Criteria: Does the area contain one or more of the following:

- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The nominated ACEC meets the relevance criteria based on the following species: Birds of Conservation Concern (Neotropical Migratory Birds) (e.g. Lucy's warbler, Cassin's finch, juniper titmouse, green-tailed towhee, and Bell's vireo) (USFWS 2008b, UDWR 2007b), golden eagle, ferruginous hawk, peregrine falcons, and prairie falcons (Birds of Conservation Concern) (BLM 1993, USFWS 2008b), Desert Sucker (Addley and Hardy 1993) (BLM Sensitive Species) (BLM 2011b, UDNR 2002), Flannelmouth Sucker (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2004, and UDWR 2010a), Virgin Spinedace (Addley and Hardy 1993) (BLM Sensitive, and Conservation Plan Species) (BLM 2011b, UDNR 2002, UDWR 2002, UDWR 2010a), and riparian habitat (BLM 2010e), which support populations of federally listed, and/or BLM Sensitive Species (USFWS 1970, USFWS 1989b, USFWS 1995a).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: Nominated area contains habit for several species (e.g. Lucy's warbler, Cassin's finch, juniper titmouse, green-tailed towhee, and Bell's vireo) of Birds of Conservation Concern (Neotropical Migratory Birds) (USFWS 2008b, UDWR 2007b). Nominated area was found to be of local importance only.

Nominated area (Virgin River drainage and tributaries) contains habitat for golden eagle, ferruginous hawk, peregrine falcons, and prairie falcons (Birds of Conservation Concern) (BLM 1993, USFWS 2008b). Nominated area was found to be of local importance only.

Nominated area (East Fork Beaver Dam Wash) contains habitat (Addley and Hardy 1993) with very low populations of desert sucker (BLM Sensitive Species) (BLM 2011b, UDNR 2002, and UDWR 2010a). Because of poor riparian vegetation, lack of permanent flows, and water quality (temperature), natural habitat potential is very low, so is not more than locally important for desert sucker.

Nominated area (East Fork Beaver Dam Wash) contains poor to fair riparian habitat (BLM 2010e), which support low populations of federally listed, and/or BLM Sensitive Species (USFWS 1970, USFWS 1989b, USFWS 1995a). Because of limited riparian vegetation, low flows, and water quality (temperature), natural habitat potential for BLM Sensitive Species is very low, so it is not more than locally important.

References:

Addley and Hardy, 1993, Addley, R.C., T.B. Hardy. 1993. The Current Distribution and Status of Spinedace in the Virgin River Basin, 1993.

BLM, 1993, United States Bureau of Land Management (BLM), 1993. Red Mountain, and Sand Mountain Raptor Routes, Unpublished Studies, St. George Field Office, St. George, Utah, 1993.

BLM, 2010e, United States Bureau of Land Management (BLM), 2010. Riparian Studies in Washington County, Utah (BLM Lands), St. George Field Office, St. George, Utah, 2010.

BLM, 2011b, United States Bureau of Land Management (BLM), 2011. Utah State Office, State Directors List of Sensitive Species, February 3, 2011.

UDNR, 2002, Utah Department of Natural Resources (UDNR), 2002. Program Document for the Virgin River Resource Management and Recovery Program, 2002.

UDWR, 2007b, Utah Division of Wildlife Resources (UDWR), 2007. Population Monitoring of Neotropical Migratory Birds in Riparian Habitats of Utah, UDWR Publication Number 07-17, August 15, 2007.

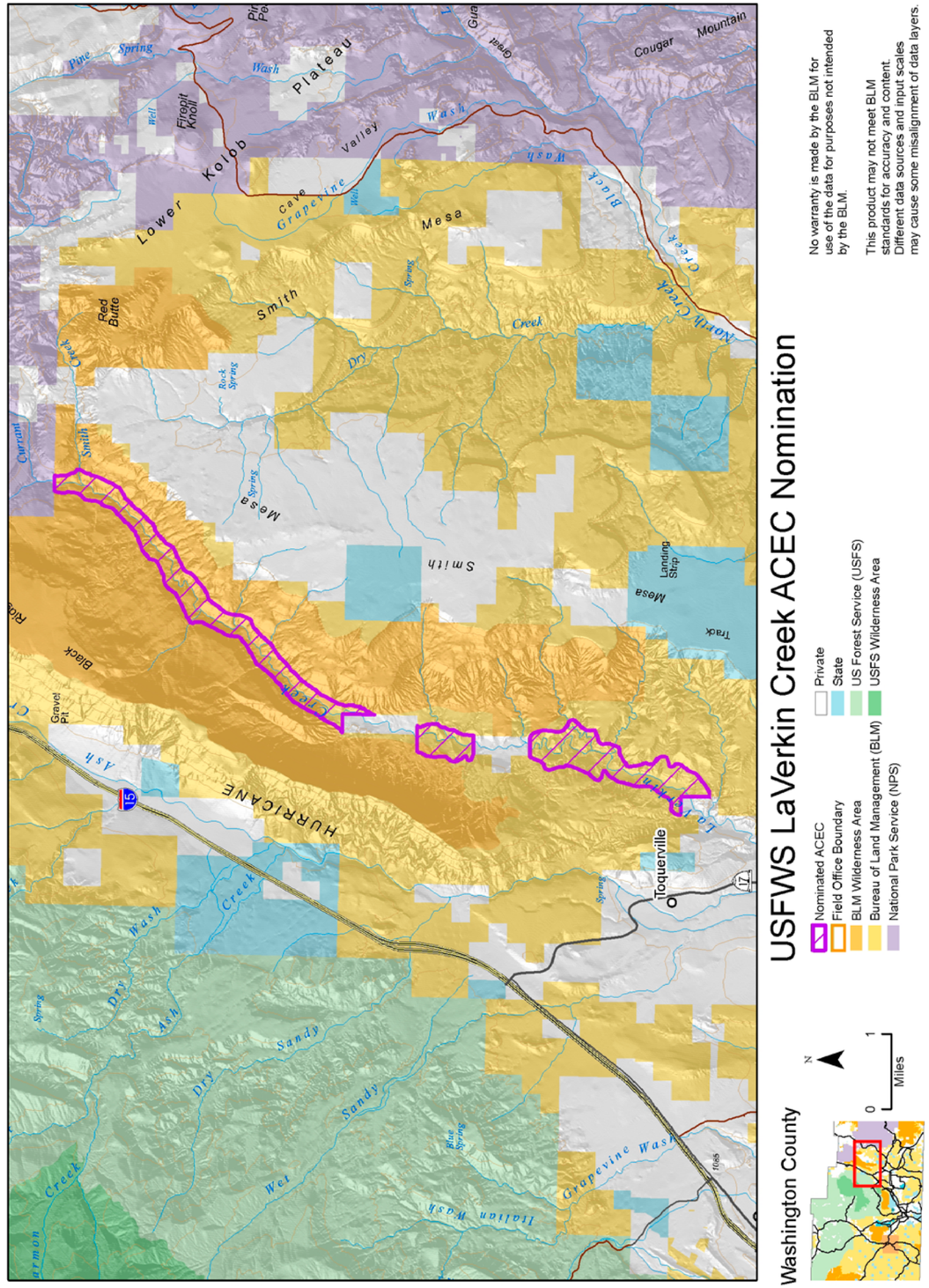
UDWR, 2010a, Utah Division of Wildlife Resources (UDWR), 2009. Final Virgin Spinedace Population Monitoring Summary, 1994-2009, Publication # 10-04, Utah Division of Wildlife Resources, Salt Lake City, Utah, February, 2010.

USFWS, 1970, United States Fish and Wildlife Service (USFWS), 1970. Final Rule to List the Woundfin as an Endangered Species. 35 Federal Register 16047 16048, October 13, 1970.

USFWS, 1989b, United States Fish and Wildlife Service (USFWS), 1989. Final Rule to List the Virgin River Chub as an Endangered Species. 54 Federal Register 35305 35311, August 24, 1989.

USFWS, 1995a, United States Fish and Wildlife Service (USFWS), 1995. Final Rule to List the Southwestern Willow Flycatcher as an Endangered Species. 60 Federal Register 10693 10715, February 27, 1995.

USFWS, 2008b, United States Fish and Wildlife Service (USFWS), 2008. Birds of Conservation Concern, U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. Website: <http://www.fws.gov/migratory birds/>, Accessed June 2010.



4.24 USFWS Sand Mountain

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: USFWS Sand Mountain

Location of Nominated ACEC: Includes south and south-west side of Sand Mountain

Acreage: 982 Acres

Relevance Criteria: Does the area contain one or more of the following:

- A significant historic, cultural, or scenic value?
- A fish and wildlife resource?
- A natural process or system?
- A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The nominated ACEC meets the relevance criteria based on the following species: Golden Eagle nesting occurs (BLM 1993) and this species is federally protected under the Eagle Act, Birds of Conservation Concern (Raptor Species) (USFWS 2008b), Gila monsters (BLM Sensitive, and Federally Petitioned Species) (BLM 2011b, USFWS 1982, USFWS 1985b, USFWS 1991, USFWS 1994d, USFWS 2011).

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: The area of the nominated ACEC does not meet the importance criteria because the species present do not exceed the level of local significance, nor are they considered fragile, sensitive, rare, irreplaceable, exemplary, unique, or vulnerable to adverse change. While golden eagles are listed in the Birds of Conservation Concern, they are considered locally common in the St. George Field Office. This species is not experiencing declining populations within the planning area.

Nominated area contains habitat for several species of Birds of Conservation Concern (Raptor Species). Nominated area was found to be of local importance only. Gila monster habitat is present, but was found to be of local importance only. Additionally, in June of 2011 the USFWS issued a finding that declined to list Utah populations of the Gila monster.

References:

BLM, 1993, United States Bureau of Land Management (BLM), 1993. Red Mountain, and Sand Mountain Raptor Routes, Unpublished Studies, St. George Field Office, St. George, Utah, 1993.

BLM, 2011b, United States Bureau of Land Management (BLM), 2011. Utah State Office, State Directors List of Sensitive Species, February 3, 2011.

USFWS, 1982, United States Fish and Wildlife Service (USFWS), 1982. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 47 Federal Register 58454 58460, December 30, 1982.

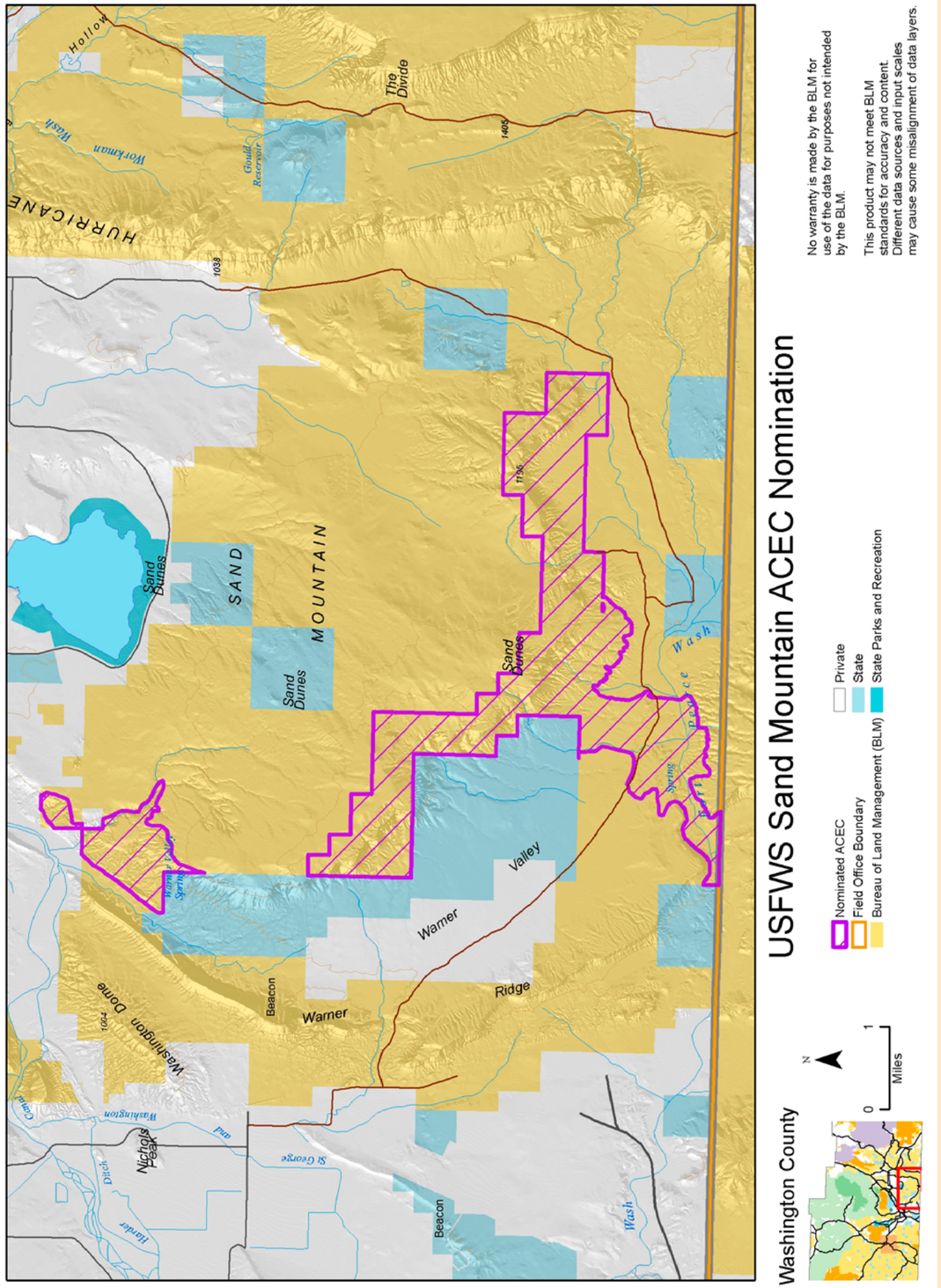
USFWS, 1985b, United States Fish and Wildlife Service (USFWS), 1985. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 50 Federal Register 37958 37967, September 18, 1985.

USFWS, 1991, United States Fish and Wildlife Service (USFWS), 1991. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife. 56 Federal Register 58804 58836, November 21, 1991.

USFWS, 1994d, United States Fish and Wildlife Service (USFWS), 1994. Proposed Rule to consider Gila monster for addition to the List of Endangered and Threatened Wildlife, However, information not available to support listing. 59 Federal Register 58982 59028, November 15, 1994.

USFWS, 2008b, United States Fish and Wildlife Service (USFWS), 2008. Birds of Conservation Concern, U.S. Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia. Website: <http://www.fws.gov/migratory birds/>, Accessed June 2010.

USFWS, 2011, United States Fish and Wildlife Service (USFWS), 2011. Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition To List the Utah Population of the Gila Monster as an Endangered or a Threatened Distinct Population Segment, 76 Federal Register 36049 36053, June 21, 2011.



4.25 VRLP Dry Creek

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: VRLP Dry Creek

Location of Nominated ACEC: Hurricane, Smith Mesa, and Dry Creek

Acreage: 20,113 Acres

Relevance Criteria: Does the area contain one or more of the following:

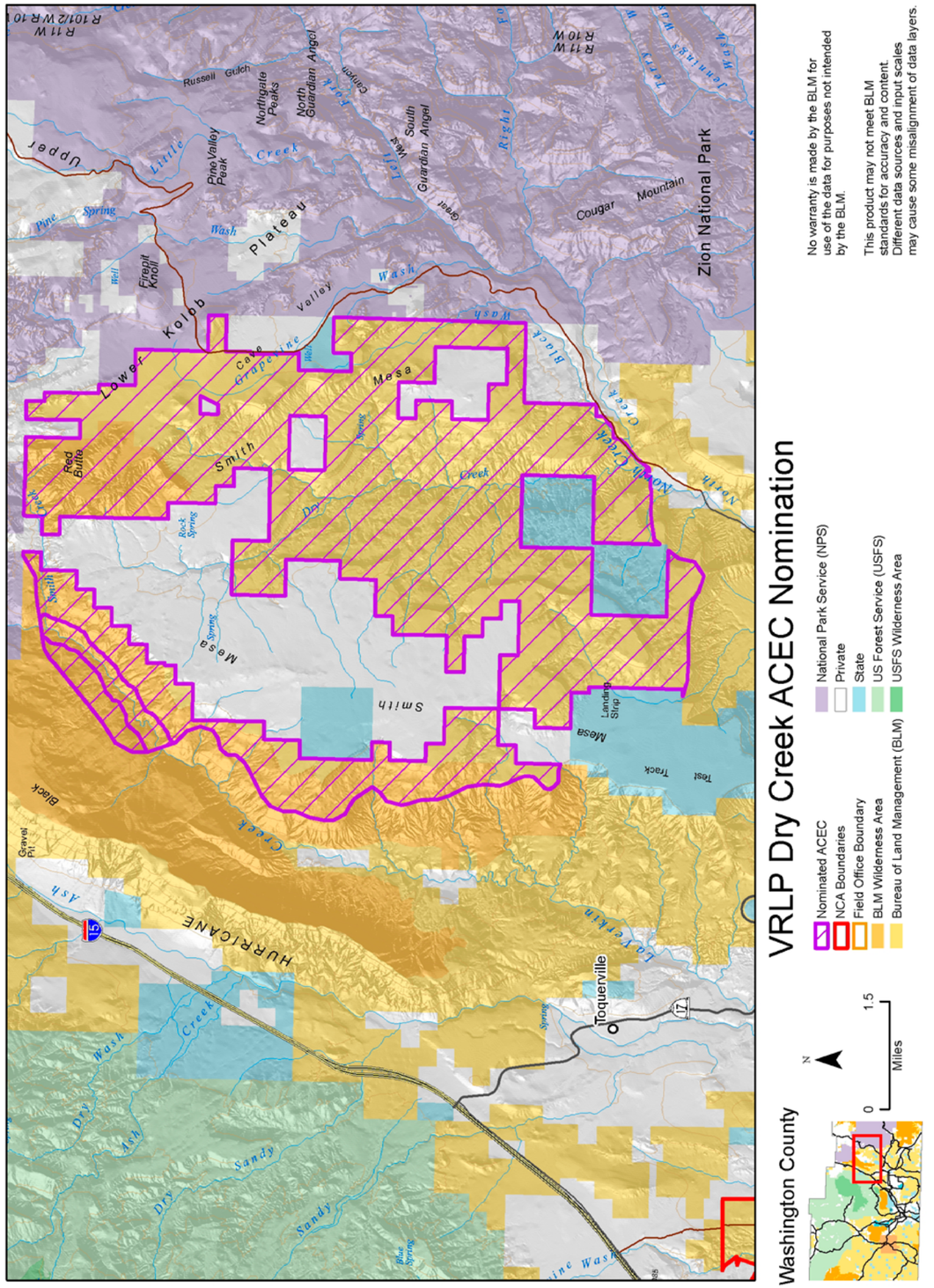
- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The nominated ACEC meets the relevance criteria based on the following species: Nominated area contains crucial mule deer habitat.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: Nominated area contains crucial mule deer habitat which was found to be of local importance only.



4.26 WS Black Ridge

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: WS Black Ridge

Location of Nominated ACEC: Area covers from I-15 on the west to Zion NP on the east, and Black Ridge on the north to Highway 9 on the south

Acreage: 45,557 Acres

Relevance Criteria: Does the area contain one or more of the following:

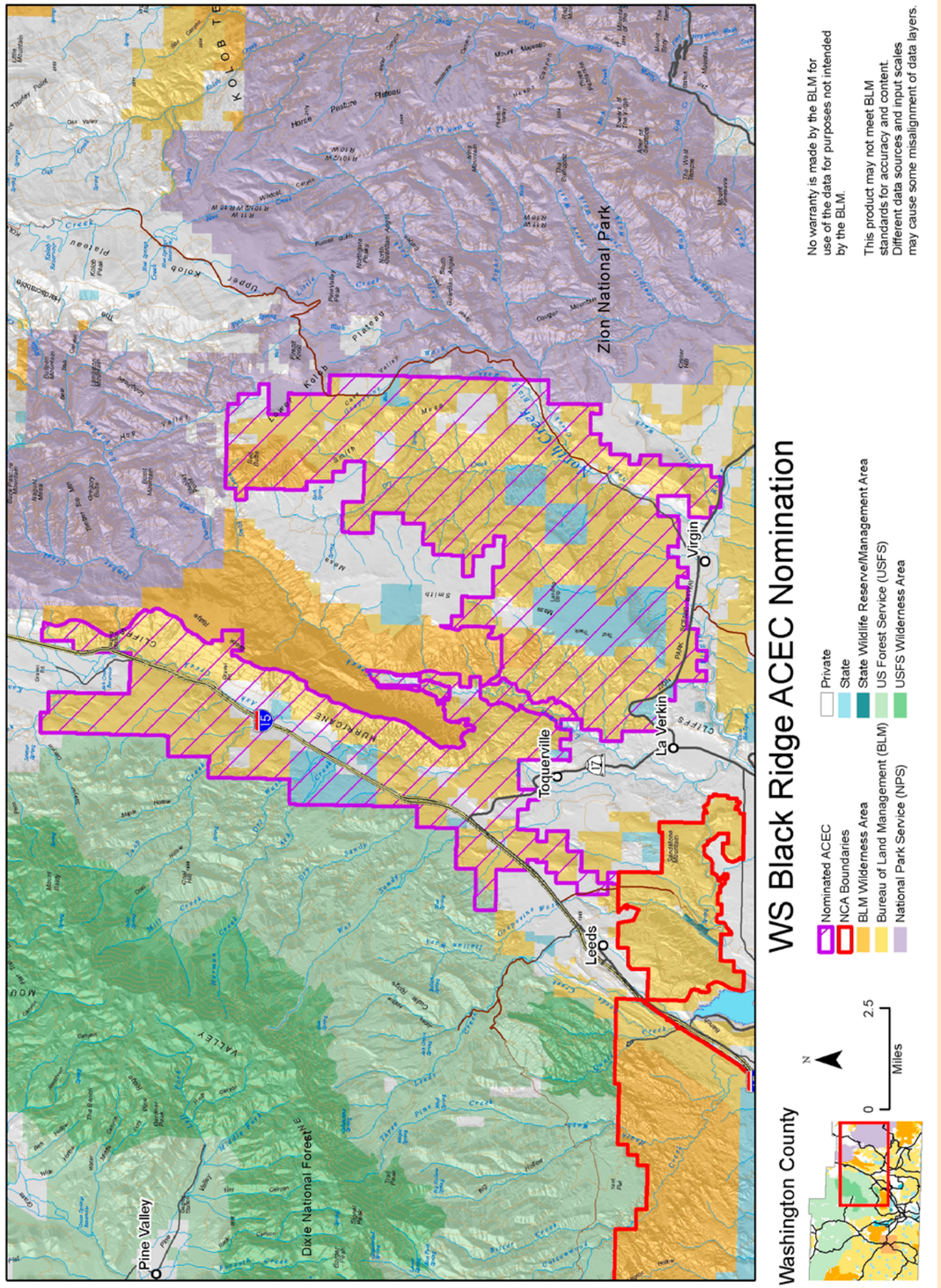
- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The nominated ACEC meets the relevance criteria based on the following species: Nominated area contains crucial mule deer habitat.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: Nominated area contains habit crucial mule deer habitat which was found to be of local importance only.



4.27 WS Pine Valley

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: WS Pine Valley

Location of Nominated ACEC: Area covers from Highway 18 on the west to US Forest Service boundary on the east, and US Forest Service boundary on the north to Red Mountain Wilderness area on the south

Acreage: 21,925 Acres

Relevance Criteria: Does the area contain one or more of the following:

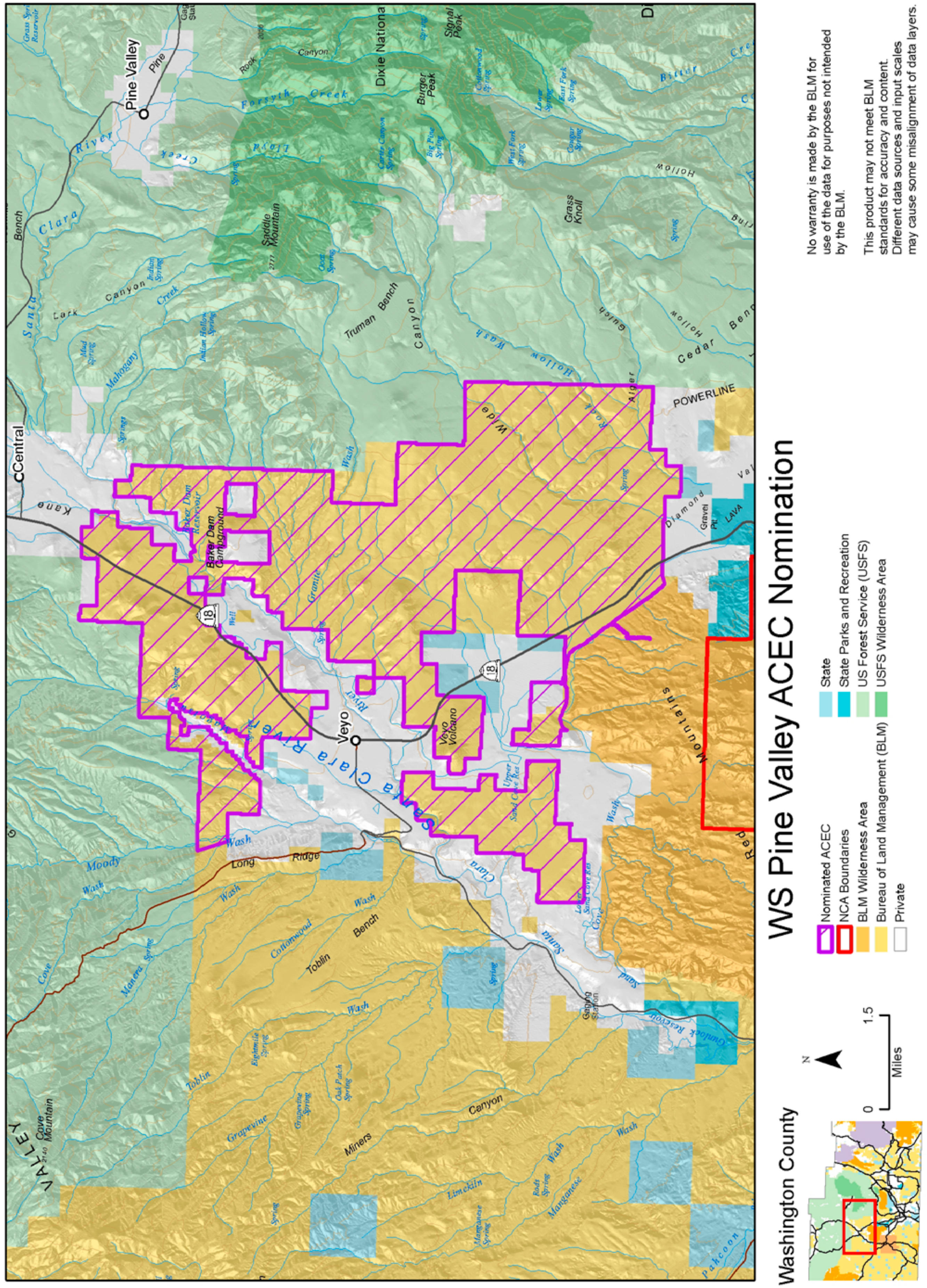
- ► A significant historic, cultural, or scenic value?
- ► A fish and wildlife resource?
- ► A natural process or system?
- ► A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The nominated ACEC meets the relevance criteria based on the following species: Nominated area contains crucial mule deer habitat.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- ► Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- ► Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- ► Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- ► Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- ► Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: Nominated area contains habit crucial mule deer habitat which was found to be of local importance only.



4.28 WWP Zion Gateway

Requirements for ACEC Designation: To be designated as an ACEC, an area must meet the relevance and importance criteria listed in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to relevant and important resource values. Evaluation of the relevance and importance critera are listed below.

Name of Nominated ACEC: WPP Zion Gateway

Location of Nominated ACEC: Located south, east and north of East Fork Virgin River and North Fork Virgin River

Acreage: 83 Acres

Relevance Criteria: Does the area contain one or more of the following:

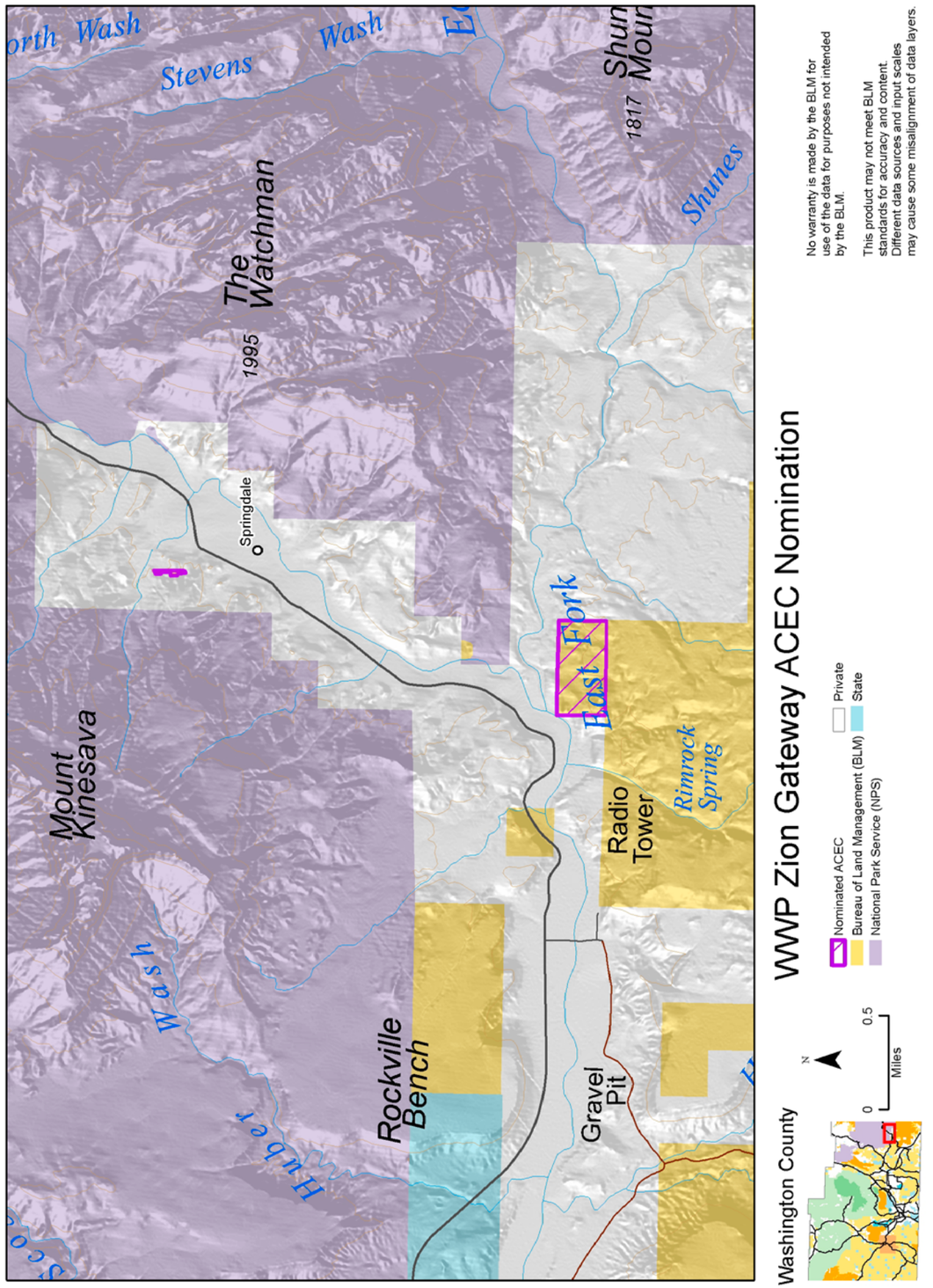
- A significant historic, cultural, or scenic value?
- A fish and wildlife resource?
- A natural process or system?
- A natural hazard?

List the value(s), resource(s), process(es) or hazard(s) contained in this ACEC: The nominated ACEC does not meet the relevance criteria due to a lack of habitat for the following species: desert tortoise, Gila Monster, Southwestern Willow Flycatcher. These species do not occur on BLM managed lands in this area. This nominated ACEC also included scenic resources as a relevant and important value. Due to the specific direction in OPLMA to preserve areas "where biological conservation is a priority", this ACEC process only considers new ACECs that have a biological component or value. Areas nominated for scenic and cultural values were not considered at this time, but will be considered when the St. George Field Office Resource Management Plan is revised in the future. Until the St. George Field Office Resource Management Plan is revised, visual resources in this area would be protected by being managed as VRM Class II.

Importance Criteria: Does the value, resource, system, process, or hazard described above have substantial significance or value? Does it meet one or more of the following criteria:

- Is it more than locally significant, especially compared to similar resources, systems, processes, or hazards within the region or nation?
- Does it have qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change?
- Has it been recognized as warranting protection in order to satisfy national priority concerns or to carry out mandates of FLPMA?
- Does it have qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare?
- Does it pose a significant threat to human life and safety or property?

Describe the importance of the value(s) listed above: Not applicable.



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APPENDIX F

Best Management Practices for Management Actions

This appendix provides a list of common standard operating procedures and best management practices that are applicable to all alternatives in the resource management plans. Standard operating procedures are established guidelines that are followed by the BLM in carrying out management activities. While the list of standard operating procedures is complete, the list is not intended to be comprehensive; additional standard operating procedures could be developed and implemented to support achieving resource objectives.

Best management practices are mitigation measures applied on a site-specific basis to avoid, minimize, reduce, rectify, or compensate for adverse environmental or social impacts. They are applied to management actions to aid in achieving desired outcomes for safe, environmentally responsible resource development, by preventing, minimizing, or mitigating adverse impacts and reducing conflicts. Best management practices can also be proposed by project applicants for activities on public lands (e.g., trail construction). Best management practices not incorporated into the permit application by the applicant may be considered and evaluated through the environmental review process and incorporated into the use authorization as conditions of approval or right-of-way stipulations. Standard conditions of approval and right-of-ways stipulations are also provided in this appendix as appropriate. Additional best management practices, conditions of approval, and right-of-way stipulations could be developed to meet resource objectives on the basis of local conditions and resource specific concerns.

1.0 Soils

1.1 Best Management Practices

- ► Loosen compacted subsoil if needed by ripping to appropriate depth depending on site specific conditions.
- ► Consider hydrologic setting and existing hydrologic features in project design and layout
- ► Minimize soil exposure to erosional forces of wind and water by waiting until just before beginning construction to clear vegetation and to disturb the soil.
- ► Minimize the area of bare soil within the approved work zone as much as possible.
- ► Where applicable, cover entrances of construction sites with gravel to prevent trucks from tracking sediment from the construction site onto roads. This sediment will eventually end up clogging roadway drainage systems or settling into wetlands.
- ► Protect and maximize existing native vegetation and natural forest/rangeland floor, thereby reducing impervious areas on the site.
- ► Disperse stormwater to areas of undisturbed forest/rangeland floor wherever possible, rather than concentrating it into channels.
- ► Determine the volume of available topsoil existing on the site. Topsoil shall be spread at a minimum compacted depth of 4 inches (or as appropriate determined by soil type).
- ► Stockpile topsoil so that it meets specifications and does not interfere with work on the site.
- ► Allow sufficient time in scheduling for topsoil to be spread and bonded with the subsoil prior to seeding, sodding, or planting.

1.2 Conditions of Approval

- ► When saturated soil conditions exist on or along the right-of-way, construction shall be halted until soil material dries out sufficiently for construction to proceed without undue damage and erosion to the right-of-way.
- ► All construction and travel on the road and right-of-way shall stop until soils dry if ruts greater than three inches are formed by vehicles and equipment.
- ► The grant holder shall provide satisfactory reclamation of all sites disturbed by their activity. This may include installation of additional erosion control devices and seeding at the discretion of the BLM Authorized Officer.

Storm water - BMPs identified in the Storm Water Management Plan shall be in place prior to any earth-disturbing activity. Additional BMPs will be installed as determined necessary by the BLM Authorized Officer. All

temporary BMPs shall be removed once site stabilization and reclamation efforts have been deemed successful by the BLM Authorized Officer.

- Topsoil shall be conserved during excavation and reused as cover on disturbed areas to facilitate regrowth of vegetation. Topsoil shall only be used for reclamation and shall not be used to bed or pad the pipe during backfilling.
- To control erosion and sediment transport, roads shall be crowned or sloped, ditched, surfaced, drained with culverts and/or water dips, and constructed to BLM Gold Book standards. Culvert outlets shall incorporate controls such as rip-rap, sediment catchments, and anchored straw bales, to slow water velocity and prevent erosion and soil transport. Initial gravel application shall be a minimum of four inches.
- The operator shall provide timely year-round road maintenance and cleanup on roads. A regular schedule for maintenance shall include, but not be limited to, crown or slope reconstruction, blading, ditch, culvert and catchment cleaning, road surface replacement, and dust abatement. When rutting within the traveled way becomes greater than three inches, blading, and/or gravelling shall be conducted as approved by the BLM Authorized Officer.
- The grantee shall construct water bars, kicker dikes, ditch breaks, pocking, or other erosion control techniques, on all of the right-of-way, as directed by the BLM Authorized Officer. The water bars or dikes shall be constructed across the full width of the disturbed area.
- Disturbed portions of the right-of-way surface shall be left rough and not smoothed to facilitate seed germination and seedling survival.
- Top soil segregation will not occur when soils are saturated or frozen unless special authorization is granted by the BLM Authorized Officer.
- A Winter Construction Plan will be submitted and approved by the BLM Authorized Officer before a Notice to Proceed will be authorized for construction activities in frozen soils.
- Soil or loam that is stored or stockpiled during construction shall be handled in a way to preserve soil quantity and natural soil properties and productivity.
- The face of cut/fill slopes will be stabilized and the face of all graded slopes shall be protected from surface runoff until they are stabilized.
- The face of the slope shall not be subject to any concentrated flows of surface water such as from natural drainage ways, graded swales, and downspouts.
- Subsurface drainage shall be provided where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.
- Slopes shall not be created so close to property lines as to endanger adjoining properties without adequate protection against sedimentation, erosion, slippage, settlement, subsidence or other related damages.
- All disturbed areas shall be stabilized structurally or with vegetation in compliance with the appropriate BMPs.
- All graded or disturbed areas including slopes shall be protected during clearing and construction in accordance with the approved erosion and sediment control plan until they are adequately stabilized.
- All erosion and sediment control practices and measures shall be constructed, applied, and maintained in accordance with the approved erosion and sediment control plan.
- Frozen material or soft, mucky, or highly compressible materials shall not be incorporated into fill slopes or structural fills.
- Fill shall not be placed on a frozen foundation.
- Any sign of rill or gully erosion shall be immediately investigated and repaired as needed or requested by the authorizing officer.
- Fall and winter erosion control measures must be upgraded and refined to protect the site from spring runoff and snowmelt.
- Topsoil stripping shall be confined to the immediate construction areas. A 4 to 6-inch stripping depth is common, but depth may vary depending on the particular soil. All perimeter dikes, basins, and other sediment controls shall be in place prior to stripping.

- After the areas to be topsoiled have been brought to grade, and immediately prior to spreading the topsoil, the subgrade shall be loosened by disking or scarifying to a depth of at least two inches (or as site specific analysis determines appropriate for soil type) to ensure bonding with subsoil.
- Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding.

2.0 Water Resources

2.1 Best Management Practices

- Design roads for minimal disruption of natural drainage patterns.
- Reduce road corridor widths by building vertical cut slopes and stabilizing with rock retaining walls.
- Provide energy dissipaters (e.g., rock piles and logs) where necessary at the downstream end of ditch relief culverts to reduce the erosion energy of the emerging water.
- Drainage structures shall not be discharged onto erodible soils or fill slopes without outfall protection.
- Avoid using roads during wet periods if such use will likely damage the road drainage features.
- Grade road surfaces only as often as necessary to maintain a stable running surface and to retain the original surface drainage.
- Avoid cutting the toe of cut slopes when grading roads or pulling ditches.
- Keep road inlet and outlet ditches, catch-basins, and culverts free of obstructions, particularly before and during spring runoff. Routine machine-cleaning of ditches shall be kept to a minimum during wet weather. Leave the disturbed area in a condition that provides drainage with no additional maintenance.
- Provide for erosion-resistant surface drainage by adding necessary drainage facilities and armoring prior to fall rain or snow. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent sediment from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff.
- Avoid grading sections of road that do not need maintenance, as this elevates sediment production from the newly disturbed surface. Raise the blade where grading is not needed.
- Remove berms from the outside edge or roads where runoff is channeled.
- Leave abandoned roads in a condition that provides adequate drainage without further maintenance. Close these roads to traffic, reseed and/or scarify, and, if necessary, re-contour and provide cross ditches or drain dips.
- Cross stream channels at right angles if at all possible.
- Concentrate right-of-way actions adjacent to stream courses as far landward as safety allows.
- Remove all temporary stream crossings immediately after use and cross-ditch the ends of skid trails/two tracks/right-of-ways to mitigate erosion from disturbed areas.
- Place all excess material removed by maintenance operations in safe disposal sites and stabilize these sites to prevent erosion. Avoid locations where erosion will carry materials into a stream.
- Evaluate potential effects of stream crossings/channel work on existing structures such as culverts, bridges, buried cables, pipelines, and irrigation flumes prior to construction activities to identify and mitigate foreseen impacts.
- When designing protective/mitigation measures, consider the changes that may occur in the watershed hydrology and sedimentation over the design life of the measure. Moreover, design and construct roads that are self-maintaining and consider using road surfacing, such as gravel. Design and construct stream crossings that handle the 100-year flood, and consider culvert and bridge designs that facilitate aquatic life passage.
- Exclude livestock and vehicles from spring sources and riparian areas in which on site evaluation and/or monitoring data indicate degrading conditions.
- Exclude livestock, wildlife, and vehicles from developed spring sources.
- Stabilize and maintain grades in natural or artificial channels to prevent the formation and advancement of gullies.

- Utilize erosion control structures including but not limited to head-cut lay-backs, zuni-bowls, check dams, and sediment basins to retain soils in highly erodible areas and protect water quality.
- Use vegetation or structures to stabilize and protect banks of streams, lakes, or excavated channels against scour and erosion.
- Manage and manipulate invasive stands of brush and weeds on forest, range, pasture land by mechanical, chemical, or biological means or by prescribed burning to improve watershed function and condition.
- Reduce soil erosion and sediment delivery to surface waters by protecting, maintaining, and reestablishing desirable vegetative communities in areas of highly erodible or critically eroding soils.
- Utilize mechanical treatment methods to roughen and aerate soils in degraded sites identified for reclamation.
- Avoid alteration of natural hydrologic function and condition in source areas for springs, seeps, and fens. Relocate surface-disturbing activities away from these sensitive areas as site conditions warrant.
- Restore modified or damaged streams as close as practicable to natural conditions using bioengineering techniques to protect banks, and to reestablish riparian vegetation.
- Maintain to the greatest extent practicable natural flow rates and chemical and physical properties of surface and groundwater during work within stream channels, floodplains, and/or riparian areas.
- Low water crossings will be constructed at original streambed elevation in a manner that prevents any blockage or restriction of the existing channel. Material removed will be stockpiled for use in reclamation of the crossings.
- The operator shall institute measures such as surfacing, watering, and use of non-saline dust suppressants on all roads authorized in this project to minimize impacts from fugitive dust emissions. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
- Livestock management practices, such as animal health, feeding, and salting, shall be done in a manner to protect water quality.
- Minimize crossing of streams (intermittent and perennial) and wetlands with vehicles and heavy machinery.
- Maintain appropriate vegetative/riparian buffers around water bodies to slow runoff and trap sediments and protect water quality.
- Time work in wetlands and watercourses to occur during low flow season when conditions are driest. High flows occur during late summer early fall as a result of high intensity convective thunderstorm events.
- Temporary BMPs used to filter sediments from water, thereby preventing sedimentation, shall be installed (per manufacturers recommendations) before any construction begins and shall subsequently be removed when the project is completed.
- Consider rehabilitating closed routes to reduce erosion and restore landscapes.

2.2 Conditions of Approval

- The holder shall adhere to all requirements under the Clean Water Act.
- Storm water BMPs identified in the applicant's State approved Storm Water Pollution Prevention Plan shall be in place prior to any earth-disturbing activity.
- Additional BMPs will be implemented as determined necessary by the BLM Authorized Officer.
- All temporary BMPs shall be removed once site stabilization and reclamation efforts have been deemed successful by the BLM Authorized Officer.
- Culverts and water-bars shall be installed according to 9113 standards and sized for the 10-year storm event with no static head and to pass a 25-year event without failing.
- Culverts shall be located on stable and straight stream reaches and along the stream grade. In steeper streams, it may be necessary to install natural channel design techniques downstream to minimize erosion. A hydrologist shall be consulted.
- Erosion control features shall be maintained through periodic inspection and maintenance, including cleaning dips and cross-drains, repairing ditches, marking culvert inlets to aid in location, and clearing debris from culverts.

- If requested by the BLM Authorized Officer, the holder shall furnish and install culverts of the gauge, materials, diameter(s), and length(s) as indicated and approved.
- Culverts shall be free of corrosion, dents, or other deleterious conditions.
- Spoil material from clearing, grubbing, and channel excavation shall be disposed of in a manner that will not interfere with the function of the channel and in accordance with all local, state, and Federal laws and regulations.
- To protect water quality, anti-backflow devices shall be utilized while drafting fresh water from streams, springs, and wells.
- Actions shall not result in adverse effects on the function of streams or stream corridors.
- Actions shall not impair floodplain function.
- New stream crossings shall be designed to accommodate a 100-year flood.
- Provide for erosion-resistant surface drainage by adding necessary drainage facilities and armoring prior to fall rain or snow. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff.
- No operations using chemical processes (except for vegetation management) or other pollutants in their activities will be allowed to occur within 200 feet of any water bodies.
- All stream crossings affecting perennial streams or streams supporting riparian habitat shall be professionally engineered (design, construction, and maintenance).
- Water developments (springs, reservoirs, catchments; wells, pipeline and water troughs) will conform to BLM Manual H 1741-2.
- Actual work in spring and stream beds will be done by hand where possible.
- The source of all spring developments shall be fenced.

3. 0 Vegetation: Rangeland

Guidance may come from various sources. See individual resources.

3.1 Standard Operating Procedures

Utilize the techniques and methods for vegetation treatments identified in the Record of Decision for Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States (BLM 2007).

3.2 Best Management Practices

- Close and rehabilitate roads quickly once they are no longer needed.
- Close selected routes to protect special status species and significant plant communities
- Build roads to the appropriate standard, no higher than necessary for use and safety, and utilize primitive or two-track roads rather than newly constructed roads where feasible.
- Pipelines (and electrical powerlines when possible) shall be placed within road corridors to minimize disturbance.
- Minimize disturbance to soil and native vegetation as much as possible.
- Stockpile topsoil for use in final reclamation. Topsoil shall be stored separately from other fill materials.
- When timely natural regeneration of the native plant community is not likely to occur, carefully select species that will not compete with or exclude botanical resources for re-vegetation efforts. Bare sites shall be seeded as soon as appropriate to prevent establishment of undesirable plant species.
- Ensure that seed used for re-vegetation as well as straw and hay bales used for erosion control are certified free of noxious weeds.
- Monitor re-vegetation sites to ensure successful establishment of desired species.
- Monitor the long-term success of re-vegetation efforts to ensure successful establishment of desired species and detect any noxious weed infestations. If re-vegetation is unsuccessful, continue efforts to establish desired species in disturbed sites.

- In desert shrub/saltbush communities with biological soil crusts, require reclamation that includes but is not limited to: broadcasting bacterial inoculants, planting native grass, forbs, and shrubs seedlings, and exclosure fences.

3.3 References

BLM (US Department of the Interior, Bureau of Land Management). 2007. Final Vegetation Treatment Using Herbicides on Bureau of Land Management Lands in 17 Western States, Programmatic Environmental Impact Statement. BLM, Nevada State Office, Reno, NV. June 2007.

4.0 Vegetation: Riparian Habitat and Wetlands

4.1 Standard Operating Procedures

- Utilize the techniques and methods for vegetation treatments identified in the Record of Decision for Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States (BLM 2007).

4.2 Best Management Practices

- Minimize crossing of streams (intermittent and perennial) and wetlands with vehicles and heavy machinery.
- Locate residue piles (e.g., sawdust, field chipping residue) away from drainages where runoff may wash residue into water bodies or wetlands.
- Maintain appropriate vegetative/riparian buffers around water bodies to protect water quality.
- Manage riparian areas to provide adequate shade, sediment control, bank stability, and recruitment of wood into stream channels.
- Locate project staging areas for refueling, maintenance equipment, materials, and operating supplies in areas not designated as riparian and/or stream bank management zones.
- Determine the best locations and design for roads, the slope of roads, and the approach to stream crossings through proper planning. On perennial streams roads, which will be used for longer than one year, the crossings will be engineered and approved by the BLM Authorized Officer.
- Do not locate roads or trails parallel to streams. Where roads must cross streams, cross perpendicularly and immediately exit the buffer zone.
- Appropriate improvements, such as culverts, must be placed at stream crossings to keep vehicles/equipment out of the stream flow and to prevent direct sedimentation of streams.
- Roads and trails (off-highway vehicle, horse, bicycle, hiking) will avoid wetlands and if avoidance is not possible will be designed and constructed in Technical Reference 2E22A68-NPS, Off-highway Vehicle Management.
- Install and maintain cottonwood protection on existing and planted trees where beaver loss threatens survival. Work with volunteer groups and user groups to help with the maintenance of installed structures.

5.0 Noxious and Invasive Weed Prevention

This list incorporates many suggested practices under various land uses, and is designed to allow managers to pick and choose those practices that are most applicable and feasible for each situation.

5.1 Site-Disturbing Projects

5.1.1 Pre-project Planning

- Environmental analyses for projects and maintenance programs shall assess weed risks, analyze high-risk sites for potential weed establishment and spread, and identify prevention practices.
- Determine site-specific restoration and monitoring needs and objectives at the onset of project planning.
- Learn to recognize noxious and invasive weeds.
- Inventory all proposed projects for weeds prior to ground-disturbing activities. If weeds are found, they will be treated (if the timing is appropriate) or removed (if seeds are present) to limit weed seed production and dispersal.
- Be cognizant of moving equipment and machinery from weed-contaminated areas to non-contaminated areas.
- Locate and use weed-free project staging areas. Avoid or minimize travel through weed infested areas, or restrict travel to periods when spread of disseminules is least likely.

- Identify sites where equipment can be cleaned. Remove mud, dirt, and plant parts from project equipment before moving it into a project area. Seeds and plant parts shall be collected and incinerated when possible.
- If certified weed-free gravel pits become available, the use of certified weed-free gravel will be required wherever gravel is applied to public lands (e.g., roads).
- Maintain stockpiled, non-infested material in a weed-free condition. Topsoil stockpiles shall be promptly revegetated to maintain soil microbial health and reduce the potential for weeds.
- Use competitive seed mixes when practical. A certified seed laboratory shall test each lot according to the Association of Official Seed Analysts standards (which include an all-state noxious weed list) and provide documentation of the seed inspection test. The seed shall contain no noxious, prohibited, or restricted weed seeds and shall contain no more than 0.5 percent by weight of other weed seeds. Seed may contain up to 2.0 percent of "other crop" seed by weight, including the seed of other agronomic crops and native plants; however, a lower percentage of other crop seed is recommended.

5.1.2 Project Implementation

- Minimize soil disturbance. To the extent practicable, native vegetation shall be retained in and around project activity areas, and soil disturbance kept to a minimum.
- If a disturbed area must be left bare for a considerable length of time, cover the area with weed barrier until revegetation is possible.

5.1.3 Post-project

- Clean all equipment before leaving the project site when operating in weed infested areas.
- Inspect, remove, and properly dispose of weed seed and plant parts found on clothing and equipment. Proper disposal means bagging and incinerating seeds and plant parts or washing equipment in an approved containment area.
- Re-vegetate disturbed soil where appropriate to optimize plant establishment for that specific site. Define revegetation objectives for each site. Re-vegetation may include topsoil replacement, planting, seeding, fertilization, and certified weed-free mulching as necessary. Use native material where appropriate and feasible.
- Monitor sites where seed, hay, straw, or mulch has been applied. Eradicate weeds before they form seed. In contracted projects, contract specifications could require that the contractor control weeds for a specified length of time.
- Inspect and document all ground-disturbing activities in noxious weed infested areas for at least three growing seasons following completion of the project. For ongoing projects, continue to monitor until reasonably certain that no weeds are present. Plan for follow-up treatments on the basis of inspection results.

6.0 Roads and Utilities

6.1 Pre-project Planning

- Communicate with contractors, local weed districts or weed management areas about projects and best management practices for prevention.
- Remove mud, dirt, and plant parts from project equipment before moving it into a project area. Seeds and plant parts shall be collected and incinerated when practical, or washed off in an approved containment area.
- Avoid acquiring water for road dust abatement where access to water is through weed-infested sites.
- Treat weeds on travel right-of-ways before seed formation so construction equipment doesn't spread weed seed.
- Schedule and coordinate blading or pulling of noxious weed-infested roadsides or ditches in consultation with the local weed specialist. When it is necessary to blade weed-infested roadsides or ditches, schedule the activity when disseminules are least likely to be viable.

6.2 Project Implementation

- Retain shade to suppress weeds by minimizing the removal of trees and other roadside vegetation during construction, reconstruction, and maintenance; particularly on south aspects.

► Do not blade or pull roadsides and ditches infested with noxious weeds unless doing so is required for public safety or protection of the roadway. If the ditch must be pulled, ensure weeds remain on-site. Blade from least infested to most infested areas.

6.3 Post-project

► Clean all equipment (power or high-pressure cleaning) of all mud, dirt, and plant parts before leaving the project site if operating in areas infested with weeds. Seeds and plant parts shall be collected and incinerated when possible.

► When seeding has been specified for construction and maintenance activities, seed all disturbed soil (except travel route) soon after work is completed.

► Use a certified weed-free seed mix suitable for local environmental conditions that includes fast, early growing (preferably native) species to provide quick revegetation. Consider applying weed-free mulch with seeding.

► Periodically inspect roads and right-of-ways for noxious weeds. Train staff to recognize weeds and report locations to the local weed specialist. Follow-up with treatment when needed.

► When reclaiming roads, treat weeds before roads are made impassable. Inspect and follow up on the basis of initial inspection and documentation.

► To avoid weed infestations, create and maintain healthy plant communities whenever possible, including utility right-of-ways, roadsides, scenic overlooks, trailheads, and campgrounds.

7.0 Recreation Activities

► Inspect and clean mechanized trail vehicles of weeds and weed seeds.

► Wash boots and socks before hiking into a new area. Inspect and clean packs, equipment, and bike tires.

► Avoid hiking through weed infestations whenever possible.

► Keep dogs and other pets free of weed seeds.

► Avoid picking unidentified "wildflowers" and discarding them along trails or roadways.

► Maintain trailheads, campgrounds, visitor centers, picnic areas, roads leading to trailheads, and other areas of concentrated public use in a weed-free condition. Consider high-use recreation areas as high priority sites for weed eradication.

► Sign trailheads and access points to educate visitors on noxious and invasive weeds and the consequences of their activities.

► Inspect and document travel corridors for weeds and treat as necessary.

► Encourage use of pelletized feed for backcountry horsemen and hunters. Pelletized feed is unlikely to contain weed seed.

8.0 Watershed Management

► Frequently and systematically inspect and document riparian areas and wetlands for noxious weed establishment and spread. Eradicate new infestations immediately since effective tools for riparian-area weed management are limited.

► Promote dense growth of desirable vegetation in riparian areas (where appropriate) to minimize the availability of germination sites for weed seeds or propagules transported from upstream or upslope areas.

► Address the risk of invasion by noxious weeds and other invasive species in watershed restoration projects and water quality management plans.

9.0 Grazing Management

► Consider prevention practices and cooperative management of weeds in grazing allotments. Prevention practices may include:

- Altering season of use
- Minimizing ground disturbance
- Exclusion
- Preventing weed seed transportation
- Maintaining healthy vegetation
- Re-vegetation
- Inspection
- Education
- Reporting

► Provide certified weed-free supplemental feed in a designated area so new weed infestations can be detected and treated immediately. Pelletized feed is unlikely to contain viable weed seed.

► If livestock may contribute to seed spread in a weed-infested area, schedule livestock use prior to seed-set or after seed has fallen.

► If livestock were transported from a weed-infested area, annually inspect and treat entry units for new weed infestations.

► Consider closing infested pastures to livestock grazing when grazing will either continue to exacerbate the condition or contribute to weed seed spread. Designate those pastures as unsuitable range until weed infestations are controlled.

► Manage the timing, intensity (utilization), duration, and frequency of livestock activities to maintain the competitive ability of desirable plants and retain litter cover. The objective is to prevent grazers from selectively removing desirable plant species and leaving undesirable species.

► Exclude livestock grazing on newly seeded areas with fencing to ensure that desired vegetation is well established, until objectives for seeding have been met.

► Reduce ground disturbance, including damage to biological soil crusts. Consider changes in the timing, intensity, duration, or frequency of livestock use; location and changes in salt grounds; restoration or protection of watering sites and other areas of concentrated livestock use.

► Inspect areas of concentrated livestock use for weed invasion, especially watering locations and other sensitive areas that may be particularly susceptible to invasion. Inventory and manage new infestations.

► Livestock are to be excluded from burned areas until monitoring results show emergency stabilization and rehabilitation objectives have been met.

10.0 Outfitting/Recreation Pack and Saddle Stock Use

► Allow only certified weed-free hay/feed on BLM lands.

► Inspect, brush, and clean animals (especially hooves and legs) before entering public land. Inspect and clean tack and equipment.

► Regularly inspect trailheads and other staging areas for backcountry travel. Bedding in trailers and hay fed to pack and saddle animals may contain weed seed or propagules.

► Tie or contain stock in ways that minimize soil disturbance and prevent loss of desirable native species.

► Authorized trail sites for tying pack animals shall be monitored several times per growing season to quickly identify and eradicate new weeds. Trampling and permanent damage to desired plants are likely. Tie-ups shall be located away from water and in shaded areas where the low light helps suppress weed growth.

► Educate outfitters to look for and report new weed infestations.

11.0 Wildlife

► Periodically inspect and document areas where wildlife concentrate in the winter and spring and cause excess soil disturbance.

► Use weed-free materials for all wildlife management activities.

► Incorporate weed prevention into all wildlife habitat improvement project designs.

12.0 Fire

12.1 Incident Planning

- Increase weed awareness and weed prevention by providing training to new and/or seasonal fire staff on invasive weed identification and prevention.
- Ensure that a weed specialist is included on a Fire Incident Management Team when wildfire or prescribed operations occur in or near a weed-infested area. Include a discussion of weed prevention operational practices in all fire briefings.
- Use operational practices to reduce weed spread (e.g., avoid weed infestations when locating fire lines).
- Identify and periodically inspect potential helispots, staging areas, incident command posts, and base camps and maintain a weed-free condition. Encourage network airports and helibases to do the same.
- Develop a burned-area integrated weed management plan, including a monitoring component to detect and eradicate new weeds early.

12.2 Fire-fighting

- Ensure that all equipment (including borrowed or rental equipment) is free of weed seed and propagules before entering incident location.
- When possible, use fire suppression tactics that reduce disturbances to soil and vegetation, especially when creating fire lines.
- Use wet or scratch-lines where possible instead of fire breaks made with heavy equipment.
- Given the choice of strategies, avoid ignition and burning in areas at high risk for weed establishment or spread.
- Hose off vehicles on site if they have traveled through infested areas.
- Inspect clothing for weed seeds if foot travel occurred in infested areas.
- When possible, establish incident bases, fire operations staging areas, and aircraft landing zones in areas that have been inspected and are verified to be free of invasive weeds.
- Cover weed infested cargo areas and net-loading areas with tarps if weeds exist and can't be removed or avoided.
- Flag off high-risk weed infestations in areas of concentrated activity and show weeds on facility maps.
- If fire operations involve travel or work in weed infested areas, a power wash station shall be staged at or near the incident base and helibase. Wash all vehicles and equipment upon arrival from and departure to each incident. This includes fuel trucks and aircraft service vehicles.
- Identify the need for possible fire rehab to prevent or mitigate weed invasion during fire incident and apply for funding during the incident.

12.3 Post-fire Rehabilitation

- Have a weed specialist review burned area rehabilitation reports to ensure proper and effective weed prevention and management is addressed.
- Thoroughly clean the undercarriage and tires of vehicles and heavy equipment before entering a burned area.
- Treat weeds in burned areas. Weeds can recover as quickly as 2 weeks following a fire.
- Schedule inventories 1 month and 1 year post-fire to identify and treat infestations. Eradicate or contain newly emerging infestations.
- Restrict travel to established roads to avoid compacting soil that could hinder the recovery of desired plants.
- Determine soon after a fire whether re-vegetation is necessary to speed recovery of a native plant community, or whether desirable plants in the burned area will recover naturally. Consider the severity of the burn and the proportion of weeds to desirable plants on the land before it burned. In general, more severe burns and higher pre-burn weed populations increase the necessity of re-vegetation. Use a certified weed-free seed mix.
- Inspect and document weed infestations on fire access roads, equipment cleaning sites, and staging areas. Control infestations to prevent spread within burned areas.

- Seed and straw mulch to be used for burn rehabilitation (e.g., for wattles, straw bales, dams) shall be certified weed-free.
- Replace soil and vegetation right side up when rehabbing fire line.

13.0 Fish and Wildlife Management and Special Status Species

13.1 Standard Operating Procedures

- Fences constructed will comply with applicable wildlife fence standards, such as those described in BLM Handbook H-1741-1, Fencing (BLM 1989). Current standards for fencing cattle out in deer and elk range is a four strand fence, 40 inches high with a spacing of wires from ground to top of 60" (smooth bottom wire), 6" (second wire barbed), 6" (third wire barbed), 12" (top wire preferably smooth but may need to be barbed in areas of intense cattle use).
- The BLM will consult agency species management plans and other conservation plans as appropriate to guide management and devise mitigation measures when needed.
- Lessees will be notified that a lease parcel contains potential habitat for threatened (T), endangered (E), proposed (P), candidate (C) and BLM sensitive (S) plants, fish and wildlife.
- Existing plant location records will be consulted and site inventories will be conducted to identify suitable habitat for these plants. Surveys for occupied suitable habitat will be conducted prior to any ground disturbance. Surveys will take place when the plants can be positively identified, during the appropriate flowering periods. Surveys will be conducted by qualified field botanists/biologists who will provide documentation of their qualifications, experience and knowledge of the species prior to starting work.
- For BLM sensitive species surface-disturbing activities will be avoided within 100 meters of occupied plant habitat wherever possible and where geography and other resource concerns allow. Fragmentation of existing populations and identified areas of suitable habitat will be avoided wherever possible.
- Where development is allowed within 100 meters of occupied habitat for T, E, P and C species or BLM sensitive species, unauthorized disturbance of plant habitat will be avoided by on-site guidance from a biologist, and by fencing the perimeter of the disturbed area, or such other method as agreed to by the Fish and Wildlife Service. In such instances, a monitoring plan approved by the Service will be implemented for the duration of the project to assess impacts to the plant population or seed bank. If detrimental effects are detected through monitoring, corrective action will be taken through adaptive management.
- Surface disturbance closer than 20 meters to a listed plant will be considered an adverse effect. Mitigating measures within this narrow buffer are very important and helpful to individual plants, but we do not expect that all adverse effects can be fully mitigated within this distance. Some adverse effects due to dust, dust suppression, loss of pollinator habitat, and toxic spills will likely remain. There are two possible exceptions to this rule of thumb: 1) The new disturbance is no closer to a listed plant than preexisting disturbance and no new or increased impacts to the listed plant are expected; or 2) the listed plant is screened from the proposed disturbance (e.g., tall, thick vegetation or a berm acts as a screen or effective barrier to fugitive dust and other potential impacts).
- Transplantation of potentially affected plants will not be used as a rationale to defend a "not likely to adversely affect" or a "no effect" determination for listed plant species.
- Documentation will include individual plant locations and suitable habitat distributions. Prior to conducting plant surveys, the operator will provide maps (as hard copy and GIS files) of all proposed areas of disturbance to the BLM. Maps will include existing and proposed roads, pipelines, well pads, pits, parking lots, and all other work areas. Post-construction or as-built maps will also be submitted to account for any deviations from pre-project maps. Specific polygons where rare plant surveys have been conducted will be included, along with the results of those surveys (positive or negative). The locations of any monitoring plots established to measure the status of rare plants and habitat in the vicinity of project activities will also be provided.
- Protect pollinator species for endangered or threatened species by incorporating the standard operating procedures found in the Final Programmatic Environmental Impact Statement for Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States (BLM 2007).

- ► Biological inventories must be completed prior to approval of operations in areas of known or suspected habitat of special status species, or habitat of other species of interest such as, but not limited to, raptor nests, , or rare plant communities. Surveys shall be conducted by qualified biologist(s) using protocols established for potentially affected species during the appropriate time period(s) for the species. Survey reports, data, and determinations shall be submitted to the BLM for review and confirmation according to BLM protocols. Operators, the BLM, and the BLM Authorized Officer will use the information gathered to develop an appropriate mitigation plan. Mitigating measures may include, but are not limited to, timing restrictions, relocation of development activities and fencing operations or habitat. If special status species are encountered during operation, operations will cease immediately, and the BLM Authorized Officer will be notified.
- ► To protect key wildlife species, special status species, and their habitats, surveys may be required prior to surface disturbance, habitat treatments, or similar activities. Develop and implement standard survey protocol for key species on the basis of the latest science, conservation assessments, CDOW recommendations, and similar information. Special design and construction measures may also be required in order to minimize impacts to special status species.

13.2 Best Management Practices

- ► Raptors:
  - Protect nest sites from human disturbances by implementing CPW recommended buffers around known nest sites.
  - Provide perching and nesting structures as mitigation where disturbances are impacting raptors.
  - Apply guidance from Suggested Practices for Raptor Protection on Power Lines: the State of the Art in 2006 (Avian Power Line Interaction Committee 2006) and Avian Protection Plan (APP) Guidelines (Avian Power Line Interaction Committee and US Fish and Wildlife Service 2005) or most current guidance for new power line construction (including upgrades and reconstruction) to prevent electrocution of raptors.
- ► Control noxious weeds using integrated techniques. Limit chemical control in areas with rare plant species to avoid damage to non-target species. Mechanical or chemical control in and near rare plant habitat shall only be implemented by personnel familiar with the rare plants.
- ► Prohibit collection of rare plants or plant parts, except as permitted by the BLM Authorized Officer for scientific research.
- ► The use of deicers and dust suppressants within 100 meters (328 feet) of road-side occurrences of special status plant species will require prior approval from the BLM.
- ► Herbicide application shall be kept at least 200 meters from known plant populations, except in instances where weed populations threaten habitat integrity or plant populations. Great care shall be used to avoid pesticide drift in those cases.
- ► Retain existing snags for wildlife use in places where they will not create a human hazard
- ► Where linear disturbance is proposed edges of vegetation shall be feathered to avoid long linear edges of habitat and allow for greater habitat complexity for wildlife.
- ► Protect existing temporary pools to providing breeding and hibernating habitat for amphibians.
- ► Avoid fragmentation of wildlife habitat especially in wildlife migration and movement corridors.
- ► Where water is taken directly from areas containing special status fish a meshed screen will be placed on the intake hose of an appropriate size to minimize potential intake of specials status fishes.

13.3 Notes

- ► Occupied habitat includes areas historically or currently supporting plants and/or soils containing a viable seed bank. Suitable habitat is defined as an area that contains or exhibits the specific components or constituents necessary for plant persistence, as determined by existing maps plus field inspection and/or surveys. It may or may not be occupied by plants or a seed bank. Potential habitat is defined as an area that satisfies the broad criteria of the species' habitat description. It is usually determined by preliminary in-house assessment.

- ► An avoidance buffer helps to minimize dust transport, weed invasion, unauthorized vehicular activities, chemical and produced-water spills; and helps to protect pollinator habitat.

13.4 References

Avian Power Line Interaction Committee. 2006. Suggested Practices for Raptor Protection on Power Lines: the State of the Art in 1996. Edison Electric Institute, Avian Power Line Interaction Committee, and the California Energy Commission. Washington, DC, and Sacramento, CA.

Avian Power Line Interaction Committee and US Fish and Wildlife Service. 2005. Avian Protection Plan (APP) Guidelines, April 2005. Washington, DC.

BLM (United States Department of the Interior, Bureau of Land Management). 1989. Handbook H-1741-1: Fencing. Release 1-1572. BLM, Washington, DC. December 6, 1989. 58pp.

_____. 2007. Final Vegetation Treatment Using Herbicides on Bureau of Land Management Lands in 17 Western States, Programmatic Environmental Impact Statement. BLM, Nevada State Office, Reno, NV. June 2007.

Elliott, B.A., S. Spackman Panjabi, B. Kurzel, B. Neely, R. Rondeau, and M. Ewing. 2009. Recommended Best Management Practices for Plants of Concern. Practices developed to reduce the impacts of oil and gas development activities to plants of concern. Unpublished report prepared by the Rare Plant Conservation Initiative for the National Fish and Wildlife Foundation.

14.0 Wildlife Damage Management

14.1 Standard Operating Procedures

- ► Control activities conducted by the US Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services will be coordinated with the BLM on an annual basis, including review of authorized control areas and annual submittal of control activities on NCA lands.
- ► US Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services will notify the NCA before any damage control activity is implemented within the restricted area(s), and exceptions will be approved on a case-by-case basis.
- ► All US Environmental Protection Agency use restrictions and requirements for toxicants are to be followed where control devices are used on public lands. BLM's Authorized Officer must be notified before any toxicants are deployed and a map of the treatment area must be provided. Adequate signage must be provided and maintained.

15.0 Cultural Resources

15.1 Standard Operating Procedures

- ► The holder of a BLM authorization to carry out land use activities on Federal lands, including all leases and permits, must notify the BLM, by telephone and written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony (43 Code of Federal Regulations [CFR] 10.4(g)). Activities must stop in the immediate vicinity of the discovery. The discovery must be protected from the authorized activity for a period of 30 days or unless otherwise notified by the (43 CFR 10.4(c) and (d)).
- ► The National Historic Preservation Act as amended, requires that if newly discovered historic or archaeological materials or other cultural resources are identified during project implementation, work in that area must stop and the BLM Authorized Officer must be notified immediately. Within five working days the BLM Authorized Officer will inform the proponent as to:
  - Whether the materials appear eligible for the National Register of Historic Places;
  - The mitigation measures the proponent will likely have to undertake before the site could be used (assuming in situ preservation is not practicable), (36 CFR 800.13); and
  - A time frame for the BLM Authorized Officer to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Office, that the BLM Authorized Officer's findings were correct and mitigation was appropriate.
- ► A standard Education/Discovery stipulation for cultural resource protection shall be attached to the land use authorization. The operator or its contractor is responsible for informing all persons who are associated with

the project operations that Federal laws protect cultural resources and they will be subject to prosecution for disturbing or destroying any historic or archaeological sites, or collecting any cultural objects, prehistoric or historic from Federal lands.

- Strict adherence to the confidentiality of information concerning the nature and location of archeological resources will be required of any company issued a land use authorization and all of their subcontractors (Archaeological Resource Protection Act, 16 US Code 470hh).

15.2 Best Management Practices

- BLM specialists shall complete a File Search Request form and submit to the NCA Archaeologist as soon as there is proposed BLM activity or BLM authorized activity that will require preparation of a NEPA document. This will provide the specialist with immediate information as to the need for Class III inventory, whether that will be contracted or in-house, or the presence of Cultural Resources that may preclude or impede their project.
- Evaluation of all BLM activities and BLM authorized activities shall be made in compliance with BLM Manual 8100, The Foundations for Managing Cultural Resources (BLM 2004a), and subsequent 8100 series (BLM 2004b, 2004c, 2004d, 2004e, 2004f, 2004g, and 2004h); Handbook of Guidelines and Procedures for Inventory, Evaluation, and Mitigation of Cultural Resources (BLM 1998, rev. 2007); and the current State Protocol Agreement between BLM and the Utah State Historic Preservation Office.
- When possible, locate projects in areas that are previously disturbed. To comply with the National Historic Preservation Act the BLM must identify significant cultural resources. Under the current regulations and guidelines the BLM may decide that no inventory needs to be conducted because the proposed action is located in an environment where ground disturbance has modified the surface so extensively that the likelihood of finding intact cultural resources is negligible.
- When a NEPA document specifically stipulates the need for an archaeological monitor during construction or a project is located in areas that require an archaeological monitor to be present it is the applicant's responsibility to contract an archaeological consultant holding a current Utah BLM permit and authorized to work in the NCA. Fieldwork authorizations are required prior to any construction monitoring.
- Where proposed projects or development will adversely affect a cultural resource, testing, data recovery or full excavation to recover scientific information may be required as mitigation. The applicant or operator bears the full cost of mitigation and is encouraged to consider avoiding adverse effects through project relocation or redesign rather than mitigating adverse effects.
- A cultural resource must be allocated to public use prior to:
  - authorizing or implementing any Heritage Tourism project;
  - when Special Recreation Permits are issued that will use a cultural resource; or
  - a BLM recreation project is proposed that involves the use or interpretation of a cultural resource.

A File Search Request form must be submitted to the Field Office Archaeologist identifying the site and the proposed use so the allocation to public use can be confirmed.

15.3 References

BLM (United States Department of the Interior, Bureau of Land Management). 2004a. Manual 8100: The Foundations for Managing Cultural Resources. Release 8-72. BLM, Washington, DC. December 3, 2004.

_____. 2004b. Manual 8110: Identifying and Evaluating Cultural Resources. 8-73. BLM, Washington, DC. December 3, 2004.

_____. 2004c. Manual 8120: Tribal Consultation Under Cultural Resources. 8-74. BLM, Washington, DC. December 3, 2004.

_____. 2004d. Manual 8120-1: General Procedural Guidance for Native American Consultation. 8-75. BLM, Washington, DC. December 3, 2004.

_____. 2004e. Manual 8130: Planning for Uses of Cultural Resources. 8-76. BLM, Washington, DC. December 3, 2004.

_____. 2004f. Manual 8140: Protecting Cultural Resources. 8-77. BLM, Washington, DC. December 3, 2004.

_____. 2004g. Manual 8150: Permitting Uses of Cultural Resources. 8-78. BLM, Washington, DC. December 3, 2004.

_____. 2004h. Manual 8170: Interpreting Cultural Resources for the Public. 8-79. BLM, Washington, DC. December 3, 2004.

16.0 Tribal Consultation

16.1 Standard Operating Procedures

- The BLM has a responsibility to develop a government-to-government relationship with the tribes: the formal relationship that exists between the Federal Government and tribal governments under United State laws. Tribal governments are considered dependent domestic sovereignties with primary and independent jurisdiction (in most cases) over tribal lands. Concerning proposed BLM plans and actions, at least the level of consideration and consistency review provided to State governments must be afforded to tribal governments.
- The BLM is responsible for consultation under General Authorities defined as "laws, executive orders, and regulations that are not considered 'cultural resource authorities.'" The regulations implementing both Federal Land Policy and Management Act and NEPA require Native American consultation. The American Indian Religious Freedom Act and the Indian Sacred sites order (Executive Order 13007) pertain to the free exercise clause of the First Amendment (BLM H-8120-1 Guidelines for Conducting Tribal Consultation [BLM 2004], Federal Land Policy and Management Act Title II, NEPA Section 102, 40 CFR 1501.2 and 1501.7)
- Tribes must be consulted whenever other governmental entities or the public are formally involved in the BLM's environmental review process in any NEPA documentation that entails public involvement or initial discussions with local or state governments (BLM Handbook H-1790-1, National Environmental Policy Act [BLM 2008a]).
- NHPA Section 106 consultations for cultural resources that are significant to Indian tribes. Consultation with an Indian tribe must recognize the government-to-government relationship between the Federal Government and Indian tribes. The agency official shall consult with representatives designated or identified by the tribal government. Consultation shall be conducted in a manner sensitive to the concerns and needs of the Indian tribe. (36 CFR 800.2(c)(2)(ii)(C).

16.2 Best Management Practices

- Notification is conducted by simple one-way written means. Consultation is generally construed to mean direct, two-way communication.
- When publishing notices or open letters to the public indicating that the BLM is contemplating an action and that comments are welcome, managers shall send individual letters, certified mail or delivery confirmed to tribes requesting their input on actions being considered. If this is an opening dialogue, prior to having developed a strong working relationship with the tribe, if a timely response is not received the manager shall follow up with personal telephone calls.
- For the benefit of both parties, managers are encouraged to strive for the most efficient and effective method of consultation. Whatever method is chosen, all consultation activities shall be carefully documented in the official record.
- Consultation roles can be facilitated but may not be transferred to others. Cultural resource consulting firms working for land use applicants cannot negotiate, make commitments, or otherwise give the appearance of exercising the BLM's authority in consultations.
- Owing to their status as self-governing entities, tribes shall be notified and invited to participate at least as soon as (if not earlier than) the Governor, state agencies, local governments, and other Federal agencies.
- Tribal consultation means dialogue between a BLM manager and an American Indian Tribe. The BLM managers are encouraged to visit tribal councils and appropriate tribal leaders on a recurring basis. This face-to-face meeting helps to develop relationships that can reduce the time and effort spent in later consultation or individual projects. This government-to-government consultation shall be treated with appropriate respect and dignity of position.

16.3 References

BLM (United States Department of the Interior, Bureau of Land Management). 2004. Manual 8120: Tribal Consultation Under Cultural Resources. 8-74. BLM, Washington, DC. December 3, 2004.

_____. 2004. Manual 8120-1: General Procedural Guidance for Native American Consultation. 8-75. BLM, Washington, DC. December 3, 2004.

_____. 2008. Handbook H-1790-1: National Environmental Policy Act. Washington, DC. January 2008.

17.0 Geological and Paleontological Resources

17.1 Standard Operating Procedures

Attach lease notices, stipulations, and other requirements to permitted activities to prevent damage to paleontological resources.

- Require a geologic hazard survey prior to construction projects (e.g., camping areas, trailheads, communication structures, and BLM roads) in order to protect public health and safety.

18.0 Visual Resources

18.1 Best Management Practices

- Impacts to dark night skies will be prevented or reduced through the application of specific mitigation measures identified in activity level planning and NEPA level review. These measures may include directing all light downward, using shielded lights, using only the minimum illumination necessary, using lamp types such as sodium lamps (less prone to atmospheric scattering), using circuit timers, and using motion sensors.
- Any facilities authorized will use the best technology available to minimize light emissions
- Any new permits/authorizations, including renewals, will be stipulated to use the best technology available to minimize light emissions as compatible with public health and safety.
- All new surface-disturbing projects or activities, regardless of size or potential impact, will incorporate visual design considerations during project design as a reasonable attempt to meet the Visual Resource Management (VRM) class objectives for the area and minimize the visual impacts of the proposal. Visual design considerations will be incorporated by:
- Using the VRM contrast rating process (required for proposed projects in highly sensitive areas, high impact projects, or for other projects where it appears to be the most effective design or assessment tool), or by
- Providing a brief narrative visual assessment for all other projects that require an environmental assessment or environmental impact statement.
- Measures to mitigate potential visual impacts could include the use of natural materials, screening, painting, project design, location, or restoration (See Appendix H; BLM Handbook H-8431-1, Visual Resource Contrast Rating; or online at http://www.blm.gov/nstc/VRM/8431.html, for information about the contrast rating process).
- Restrict visual intrusion in VRM Class I and II areas and within 0.25-mile of historic trails.
- Screening facilities from view and avoiding placement of production facilities on steep slopes, hilltops, and ridgelines.
- Paint all facilities a color that best allows the facility to blend with the background (Operator-committed BMP).
- Gravel color of road shall be similar to adjacent dominant soil colors.
- Bury distribution powerlines and flow lines in or adjacent to access roads.
- Repeat form, line, color, and texture elements to blend facilities with the surrounding landscape
- All above ground facilities including power boxes, building doors, roofs, and any visible equipment will be painted a color selected from the latest national color charts that best allows the facility to blend into the background.
- Conduct final reclamation re-contouring of all disturbed areas, including access roads, to the original contour or a contour that blends with the surrounding topography.

- To the extent opportunities are practicable, extreme visual contrast created by past management practices or human activities will be minimized. Examples include right-of-way amendments, mineral material sites, abandoned mines, and areas impacted by unauthorized off-road driving.
- All new roads will be designed and constructed to a safe and appropriate standard, "no higher than necessary" to accommodate intended vehicular use. Roads will follow the contour of the land where practical.

19.0 Wildland Fire Ecology and Management

19.1 Standard Operating Procedures/Best Management Practices: Fuels Management

- Construct fuel breaks or green strips to protect wildland-urban interface communities and important wildlife habitat and provide for firefighter safety by using mechanical, chemical, and biological fire treatment methods.
- Construct fuel breaks and green strips in areas containing a good understory of native perennials in order to successfully compete with and deter the establishment and spread of annual species.
- Seed green strips in areas that do not have a good understory of desirable native perennials that can successfully compete with annual species.
- Where practicable, use large-scale landscape planning to connect fuel breaks and avoid small piecemeal projects.
- Maintain fuel breaks and green strips to ensure effectiveness.
- Prevent seeded species from being grazed during the first two growing seasons (>18 months) following seeding, or until site-specific analysis and/or monitoring data indicate that vegetation cover, species composition and litter accumulation are adequate to support and protect watershed values, meet vegetation objectives and sustain grazing use.
- Provide fire prevention and mitigation outreach information and education to communities surrounding the NCA.

19.2 Standard Operating Procedures

Fire Suppression

- Resource Advisors and other applicable specialists shall be utilized to advise the Incident Commander and suppression resources on the natural resource values during the suppression effort.
- Avoid applying fire retardant in or near drinking water sources.
- Avoid the application of retardant or foam within 300 feet of a waterway or stream channel. Deviations from this procedure are acceptable if life or property is threatened.
- Fire lines will not be constructed by heavy equipment within riparian stream zones. If construction is necessary due to threats to life or property, control lines shall terminate at the edge of the riparian zone at a location determined appropriate to meet fire suppression objectives on the basis of fire behavior, vegetation/fuel types, and fire fighter safety.
- Lands will be temporarily closed to other uses in areas where fire suppression is being implemented.
- If it is determined that use of retardant or surfactant foam within 300 feet of a waterway or stream channel is appropriate due to threats to life or property; alternative line construction tactics are not feasible because of terrain constraints, congested areas, or lack of ground personnel; or potential damage to natural resources outweighs possible loss of aquatic life, the unit administrator shall determine whether there have been any adverse effects to federally listed species. If the action agency determines that adverse effects were incurred by federally listed species or their habitats, then the action agency must consult with the Service, as required by 50 CFR 402.05, as soon as practicable.
- Avoid whenever possible burning out unburned islands of native vegetation, specifically sagebrush communities.
- Minimize/mitigate impacts to cultural resources and pristine vegetative communities.
- Vehicle and equipment shall be washed before being assigned to fires to minimize the spread of noxious weeds. Especially out of area equipment. Larger fires with incident management teams assigned may need to have a weed wash station.
- Emergency Stabilization and Rehabilitation

- ► Stabilize areas that have low potential to naturally re-vegetate and that have high wind and soil erosion potential. Treatments include the following:
- ► Installing water bars and other drainage diversions, culverts along fire roads, dozer lines, and other cleared areas;
- ► Seeding and planting to provide vegetative cover;
- ► Spreading mulch to protect bare soil and discourage runoff;
- ► Repairing damaged roads and drainage facilities;
- ► Clearing stream channels of structures or debris that is deposited by suppression activities;
- ► Installation of erosion control structures;
- ► Installation of channel stabilization structures;
- ► Fence or restrict areas to livestock and wild horse and burro grazing to promote success of natural re-vegetation or establishment of seeded species;
- ► Lands may be temporarily closed to other uses during emergency stabilization and rehabilitation practices if activities inhibit treatment;
- ► Repair or replace range improvements and facilities; and
- ► Monitor emergency stabilization and rehabilitation treatments.

20.0 Livestock Grazing

20.1 Standard Operating Procedures

- ► Exclude livestock grazing on newly seeded areas with fencing to ensure that desired vegetation is well established, until objectives for seeding have been met.
- ► Development of springs and seeps or other projects affecting water and associated resources shall be designed to maintain the associate riparian area and assure attainment of standards.
- ► Disturbance to established rangeland study sites shall be avoided to provide for the continuation of monitoring efforts, which involves comparisons of data to previous records of that site.
- ► Facilities shall be constructed a minimum of 0.125-mile from livestock gathering spots such as water sources and gathering facilities to prevent disruption of the use of these facilities and potential damage to the facility by livestock.
- ► Exclosures shall be established in areas where the vegetative potential of the area is questionable or to compare the effectiveness of grazing management.
- ► New fences shall be constructed to BLM standards allowing for the appropriate wildlife passage.
- ► Bird ramps shall be installed in all troughs.
- ► Access routes to functioning range improvements shall be retained to allow for periodic maintenance and prevent cross country travel.
- ► Maintain range developments to maintain or improve distribution.
- ► Rangeland and vegetation monitoring will be conducted to detect changes in grazing use, trend, and range conditions. These data will be used to support and direct grazing management decisions consistent with national policy. These efforts will help ensure that livestock grazing meets objectives for rangeland health and resolves conflicts with wildlife habitats or may provide a benefit to wildlife habitats.
- ► Grazing management decisions will be based on monitoring data, both short-term and long-term, which will be jointly developed by grazing permittees and the appropriate Federal land management agency.
- ► Surface-disturbing activities will be coordinated with livestock grazing permittees to minimize the effects of the surface disturbance on other approved operations. To the maximum extent practicable, this effort will include consulting on scheduling of operations to mutually minimize effects.
- ► Any damage to the function of range improvements (e.g., fence damage, cattle guard cleaning, livestock loss) from other approved operations will be repaired immediately or remedied by the operator causing the damage.

20.2 Best Management Practices

- ► Follow the Grazing Guidelines established along with the Utah Standards for Rangeland Health.
- ► Use grazing systems that contain rotation, deferment, and rest to produce a mosaic of habitat patches and increases the density, height and distribution of native plants.
- ► Avoid re-grazing the same plants in one growing season.
- ► Adjust grazing seasons to benefit both warm and cool season grass species by providing periodic rest from grazing for each type.
- ► Allow for adequate litter cover following grazing use to protect soil surface and enhance soil moisture retention.
- ► Allow for rest/recovery periods before or after grazing during critical growth periods. Recovery shall include the production of seed to allow for the regeneration of desirable plant species.
- ► Adjust intensity, timing and/or duration of grazing during periods of forage drought.
- ► Manage livestock grazing, including dormant season use, to insure adequate residual grass when soil moisture and wildlife habitat are concerns.
- ► Avoid use most years in areas of valuable woody plants during times when they are selected.
- ► Avoid the following grazing management practices:
  - Long seasonal use with no recovery time
  - Heavy use -stresses plants,
  - Little or no regrowth before winter -little stubble for root crown protection
  - Use at the same time every year -repeating the stress
  - No rest or growing season recovery -little recovery with long seasons of use
  - Little or ineffective herding
  - Salt placed in the same locations year after year
  - Livestock left behind after pasture moves
  - Grazing during the critical growth period year after year
- ► When using livestock to control noxious or invasive weeds, match animal dietary preference or tolerance to the target species.
- ► Use the target weed's biology when developing a grazing strategy.
- ► Manage heavy grazing on target weed species to account for any intermixed desirable species.

20.3 Best Management Practices (Vegetation/Riparian Zone Management Guidelines)

- ► To reduce negative impacts to grazing, determine the critical period(s) of a riparian site, and then limit grazing during the critical period(s) to no more often than once every three or four years. Critical periods and impacts are likely to be either in late spring-early summer, when stream banks are more easily broken down by trampling; or late summer-early fall, when excessive browsing may damage vegetation. Each site has its own critical period that shall be individually determined. Important critical period variables are soil moisture, plant species composition, animal behavior patterns. Site may be grazed every year if use does not occur during the critical period(s). Extended periods of rest or deferment from grazing may be needed to enable recovery of badly degraded sites.
- ► To maintain stream bank stability, limit cattle access to surface water when adjacent stream banks and shorelines are overly wet and susceptible to trampling and sloughing. Stream bank trampling can often be reduced by capitalizing on the natural foraging behavior of cattle. Cattle generally avoid grazing excessively wet sites or in cold-air pockets. Cattle seek out wind-swept ridges, and they graze on upland forage when it is more palatable than forage in riparian areas. Avoid hot season grazing of riparian areas.
- ► To graze a site more than once per growing season, moisture and temperature conditions shall be conducive to plant growth. For such sites, allow a recovery period of at least 30 to 60 days, depending on vegetation type, before re-grazing within the same growing season. Grazing more often and for shorter periods-that is, 3 weeks or less at a time-is preferable to fewer and longer grazing periods.

- To control the timing, frequency, and intensity of cattle grazing, managers shall consider creating smaller riparian pastures with similar, or homogenous, features. Adjusting timing, frequency, and intensity of grazing in individual pasture units is more important than adopting a formalized grazing season.
- To protect stream banks, prevent cattle from congregation near surface waters. Fencing, supplemental feeding, and herding work best. Provide remote watering systems for cattle. Manage the riparian area as a separate and unique pasture. Inappropriate cattle grazing will usually first be evidenced by excessive physical disturbance to stream banks and shorelines. (Mosley et al. 1997)
- On riparian areas that are determined to be non-functioning or functioning at risk as a result of livestock grazing impacts, limits of bank disturbance will be determined and included within the Terms and Conditions of the Grazing Permit. Monitoring of bank disturbance will use the Multiple Indicator Method.
- Winter grazing minimizes soil compaction and potential stream bank deterioration and allows maximum growth of vegetation and plant vigor. Livestock use shall not exceed 70% and stubble height shall be at least four to six inches after the grazing period.
- To protect stream banks, discourage trailing up and down the channel by placing logs across trails, perpendicular to the stream channel.
- Adjust intensity, timing and/or duration of grazing during periods of forage drought.

21.0 Recreation

- Special Recreation Permits will contain noxious weed management stipulations (e.g., pre-event inventories to avoid infested areas, event management to avoid or isolate activities that could cause weed introduction or spread, monitoring and treatment of infestations exacerbated by the activity, and other appropriate noxious weed management stipulations).
- Lands may be temporarily closed to other uses during recreation events that are conducted under special recreation permits (e.g., equestrian endurance rides or motorcycle events).

22.0 Lands and Realty

22.1 Standard Operating Procedures

- Power lines shall be constructed in accordance to standards outlined in Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996 (Avian Power Line Interaction Committee 2006). Right-of-way applicants shall assume the burden and expense of proving that proposed pole designs not shown in the above publication are "raptor safe." Such proof shall be provided by a raptor expert approved by the BLM Authorized Officer.
- Right-of-ways and other lands and realty authorizations, including power lines, pipelines and transmission corridors will contain noxious and invasive plant management terms or stipulations for all ground-disturbing actions. These will include conducting a pre-disturbance noxious weed inventory, designing to avoid or minimize vegetation removal and weed introduction or spread, managing weeds during the life of the right-of-way or authorization to prevent or minimize weed introduction or spread, abandoning the right-of-way or authorization to establish competitive vegetation on bare ground areas, and monitoring re-vegetation success and weed prevention and control for a reasonable number of years.
- Right-of-ways will be constructed to avoid physical damage to range improvements and rangeland study areas.

22.2 Standard Design Practices

- All construction activities shall be confined to the minimum area necessary. The exterior boundaries of the construction area shall be clearly flagged prior to any surface-disturbing activities.
- Existing roads will be used wherever possible. Additional roads shall be kept to the minimum. Route locations must be approved by the BLM prior to construction.
- Roads will be constructed and maintained to BLM road standards (BLM Manual 9113 [BLM 1985]). All vehicle travel will be within the approved driving surface.

22.3 Stipulations

- The Holder shall notify the BLM Authorized Officer at least 48 hours prior to the commencement construction, reclamation, maintenance, or any surface-disturbing activities under this grant.
- Copies of the right-of-way grant with the stipulations shall be kept on site during construction and maintenance activities. All construction personnel shall review the grant and stipulations before working on the right-of-way or permitted area.
- All facilities shall be labeled with the authorization number, operator, and contact information.
- No signs or advertising devices shall be placed on the premises or on adjacent public lands, except those posted by or at the direction of the BLM Authorized Officer.
- The Holder shall promptly remove and dispose of all waste caused by its activities. The term "waste" as used herein means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, ashes, and equipment. No burning of trash, trees, brush, or any other material shall be allowed.
- The Holder shall notify all existing right-of-way holders in the project area prior to beginning any surface-disturbance or construction activities. The Holder shall obtain an agreement with any existing right-of-way holders or other parties with authorized facilities that cross or are adjacent to those of the holder to assure that no damage to an existing right-of-way or authorized facility will occur. The agreement(s) shall be obtained prior to any use of the right-of-way or existing facility.
- The Holder shall participate in the formation of a Road User's Association for the road if new right-of-ways are granted for use of the existing road. All new users will be required to join the association.

22.4 References

BLM (US Department of the Interior, Bureau of Land Management). 1985. BLM Manual 9113: Roads. Release 9-247. BLM, Washington, DC. June 7, 1985. 83 pp.

23.0 Transportation and Access

23.1 Standard Operating Procedures

- Continue coordination with counties and other agency road entities to promote utilization of best management practices for road maintenance they conduct within NCA boundaries.
- Maintain an inventory of existing road and trail systems.
- BLM Manual 9113, Roads (BLM 1985a) and BLM Handbook 9113-2, Roads – Inventory and Maintenance (BLM 1985b) will be used to guide all maintenance and road construction designs and requirements. Include definitions for functional road classification and maintenance levels for BLM roads.
- All highway right-of-ways and other road authorizations will contain noxious and invasive weed stipulations that include prevention, inventory, treatment, and re-vegetation or rehabilitation. Road abandonment will include at least three years of post-abandonment monitoring and treatment.

23.2 Best Management Practices

NEPA Requirements – No new NEPA analysis will be required for road maintenance activities within the defined maintenance disturbance/easement footprint, which is defined as previously disturbed or maintained. Disturbance outside of the defined maintenance disturbance/easement footprint or road realignment will be subject to additional NEPA compliance.

23.4 References

BLM (United States Department of the Interior, Bureau of Land Management). 1985a. BLM Manual 9113: Roads. Release 9-247. BLM, Washington DC. June 7, 1985. 83 pp.

_____. 1985b. BLM Handbook 9113-2, Roads – Inventory and Maintenance. Release 9-250. BLM, Washington DC. December 19, 1985. 18 pp.

APPENDIX G

Migratory Birds and Birds of Conservation Concern

Table G-1 BDWNCA Migratory Birds And Birds Of Conservation Concern

BDWNCA Migratory Birds And Birds Of Conservation Concern			
Common Name	Scientific Name	Occurrence	Count 1992-2010
American Goldfinch	*Carduelis tristis*	Verified	9
American Kestrel	*Falco sparverius*	Verified	6
American Robin	*Turdus migratorius*	Verified	6
Ash-throated Flycatcher	*Myiarchus cinerascens*	Verified	222
Bendire's Thrasher	*Toxostoma bendirei*	Verified	12
Black-chinned Hummingbird	*Archilochus alexandri*	Verified	25
Black-chinned Sparrow	*Spizella atrogularis*	Verified	26
Black-headed Grosbeak	*Pheucticus melanocephalus*	Verified	8
Black-throated Gray Warbler	*Setophaga nigrescens*	Verified	10
Black-throated Sparrow	*Amphispiza bilineata*	Verified	1363
Blue Grosbeak	*Passerina caerulea*	Verified	11
Blue-gray Gnatcatcher	*Polioptila caerulea*	Verified	396
Brewer's Blackbird	*Euphagus cyanocephalus*	Verified	14
Brewer's Sparrow	*Spizella breweri*	Verified	58
Broad-tailed Hummingbird	*Selasphorus platycercus*	Verified	13
Brown-headed Cowbird	*Molothrus ater*	Verified	59
Bullock's Oriole	*Icterus bullockii*	Verified	4
Cassin's Kingbird	*Tyrannus vociferans*	Verified	37
Chipping Sparrow	*Spizella passerina*	Verified	20
Cliff Swallow	*Petrochelidon pyrrhonota*	Verified	32
Common Black-Hawk	*Buteogallus anthracinus*	Verified	4
Common Nighthawk	*Chordeiles minor*	Verified	10
Common Poorwill	*Phalaenoptilus nuttallii*	Verified	6
Cordilleran Flycatcher	*Empidonax occidentalis*	Verified	2
Dark-eyed Junco	*Junco hyemalis*	Verified	2
Golden Eagle	*Aquila chrysaetos*	Verified	6
Gray Flycatcher	*Empidonax wrightii*	Verified	7
Gray Vireo	*Vireo vicinior*	Verified	178
Green-tailed Towhee	*Pipilo chlorurus*	Verified	1
House Wren	*Troglodytes aedon*	Verified	2
Killdeer	*Charadrius vociferus*	Verified	5
Lark Sparrow	*Chondestes grammacus*	Verified	28
Lazuli Bunting	*Passerina amoena*	Verified	4
Lesser Goldfinch	*Spinus psaltria*	Verified	61
Loggerhead Shrike	*Lanius ludovicianus*	Verified	14
Long-eared Owl	*Asio otus*	Verified	1
Lucy's Warbler	*Oreothlypis luciae*	Verified	16
Mountain Bluebird	*Sialia currucoides*	Verified	11

BDWNCA Migratory Birds And Birds Of Conservation Concern			
Common Name	Scientific Name	Occurrence	Count 1992-2010
American Goldfinch	*Carduelis tristis*	Verified	9
American Kestrel	*Falco sparverius*	Verified	6
American Robin	*Turdus migratorius*	Verified	6
Ash-throated Flycatcher	*Myiarchus cinerascens*	Verified	222
Bendire's Thrasher	*Toxostoma bendirei*	Verified	12
Black-chinned Hummingbird	*Archilochus alexandri*	Verified	25
Black-chinned Sparrow	*Spizella atrogularis*	Verified	26
Black-headed Grosbeak	*Pheucticus melanocephalus*	Verified	8
Black-throated Gray Warbler	*Setophaga nigrescens*	Verified	10
Black-throated Sparrow	*Amphispiza bilineata*	Verified	1363
Blue Grosbeak	*Passerina caerulea*	Verified	11
Blue-gray Gnatcatcher	*Polioptila caerulea*	Verified	396
Brewer's Blackbird	*Euphagus cyanocephalus*	Verified	14
Brewer's Sparrow	*Spizella breweri*	Verified	58
Broad-tailed Hummingbird	*Selasphorus platycercus*	Verified	13
Brown-headed Cowbird	*Molothrus ater*	Verified	59
Bullock's Oriole	*Icterus bullockii*	Verified	4
Cassin's Kingbird	*Tyrannus vociferans*	Verified	37
Chipping Sparrow	*Spizella passerina*	Verified	20
Cliff Swallow	*Petrochelidon pyrrhonota*	Verified	32
Common Black-Hawk	*Buteogallus anthracinus*	Verified	4
Common Nighthawk	*Chordeiles minor*	Verified	10
Common Poorwill	*Phalaenoptilus nuttallii*	Verified	6
Cordilleran Flycatcher	*Empidonax occidentalis*	Verified	2
Dark-eyed Junco	*Junco hyemalis*	Verified	2
Golden Eagle	*Aquila chrysaetos*	Verified	6
Gray Flycatcher	*Empidonax wrightii*	Verified	7
Gray Vireo	*Vireo vicinior*	Verified	178
Green-tailed Towhee	*Pipilo chlorurus*	Verified	1
House Wren	*Troglodytes aedon*	Verified	2
Killdeer	*Charadrius vociferus*	Verified	5
Lark Sparrow	*Chondestes grammacus*	Verified	28
Lazuli Bunting	*Passerina amoena*	Verified	4
Lesser Goldfinch	*Spinus psaltria*	Verified	61
Loggerhead Shrike	*Lanius ludovicianus*	Verified	14
Long-eared Owl	*Asio otus*	Verified	1
Lucy's Warbler	*Oreothlypis luciae*	Verified	16
Mountain Bluebird	*Sialia currucoides*	Verified	11
Mourning Dove	*Zenaida macroura*	Verified	399
Northern Flicker	*Colaptes auratus*	Verified	6
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	Verified	4
Olive-sided Flycatcher	*Contopus cooperi*	Verified	1

BDWNCA Migratory Birds And Birds Of Conservation Concern			
Common Name	Scientific Name	Occurrence	Count 1992-2010
Phainopepla	*Phainopepla nitens*	Verified	7
Plumbeous Vireo	*Vireo plumbeus*	Verified	225
Prairie Falcon	*Falco mexicanus*	Verified	1
Red-tailed Hawk	*Buteo jamaicensis*	Verified	36
Sage Sparrow	*Amphispiza belli*	Verified	2
Sage Thrasher	*Oreoscoptes montanus*	Verified	2
Say's Phoebe	*Sayornis saya*	Verified	63
Scott's Oriole	*Icterus parisorum*	Verified	26
Sharp-shinned Hawk	*Accipiter striatus*	Verified	1
Song Sparrow	*Melospiza melodia*	Verified	15
Spotted Towhee	*Pipilo maculatus*	Verified	84
Tree Swallow	*Tachycineta bicolor*	Verified	18
Turkey Vulture	*Cathartes aura*	Verified	25
Vesper Sparrow	*Pooecetes gramineus*	Verified	101
Violet-green Swallow	*Tachycineta thalassina*	Verified	119
Virginia's Warbler	*Oreothlypis virginiae*	Verified	7
Warbling Vireo	*Vireo gilvus*	Verified	1
Western Kingbird	*Tyrannus verticalis*	Verified	136
Western Meadowlark	*Sturnella neglecta*	Verified	44
Western Wood-Pewee	*Contopus sordidulus*	Verified	1
White-throated Swift	*Aeronautes saxatalis*	Verified	254
White-winged Dove	*Zenaida asiatica*	Verified	1
Yellow Warbler	*Setophaga petechia*	Verified	12
Yellow-breasted Chat	*Icteria virens*	Verified	2

Table G-2 RCNCA Migratory Birds And Birds Of Conservation Concern

RCNCA Migratory Birds And Birds Of Conservation Concern			
Common Name	Scientific Name	Occurrence	Count 1962-2010
American Avocet	*Recurvirostra americana*	Verified	1
American Bittern	*Botaurus lentiginosus*	Verified	2
American Coot	*Fulica americana*	Verified	32251
American Goldfinch	*Carduelis tristis*	Verified	2178
American Kestrel	*Falco sparverius*	Verified	1480
American Pipit	*Anthus rubescens*	Verified	10113
American Robin	*Turdus migratorius*	Verified	8448
American White Pelican	*Pelecanus erythrorhynchos*	Verified	7
American Wigeon	*Anas americana*	Verified	13772
Anna's Hummingbird	*Calypte anna*	Verified	12
Ash-throated Flycatcher	*Myiarchus cinerascens*	Verified	1
Barn Swallow	*Hirundo rustica*		0
Belted Kingfisher	*Megaceryle alcyon*	Verified	206

RCNCA Migratory Birds And Birds Of Conservation Concern			
Common Name	Scientific Name	Occurrence	Count 1962-2010
Black-and-white Warbler	*Mniotilta varia*	Verified	1
Black-chinned Hummingbird	*Archilochus alexandri*	Verified	1
Black-chinned Sparrow	*Spizella atrogularis*	Verified	1
Black-crowned Night-Heron	*Nycticorax nycticorax*	Verified	68
Black-headed Grosbeak	*Pheucticus melanocephalus*	Verified	1
Black-throated Sparrow	*Amphispiza bilineata*	Verified	5
Blue-gray Gnatcatcher	*Polioptila caerulea*	Verified	30
Blue-winged Teal	*Anas discors*	Verified	14
Bonaparte's Gull	*Chroicocephalus philadelphia*	Verified	1
Brewer's Blackbird	*Euphagus cyanocephalus*	Verified	39591
Brewer's Sparrow	*Spizella breweri*	Verified	70
Brown-headed Cowbird	*Molothrus ater*	Verified	912
Bufflehead	*Bucephala albeola*	Verified	1207
Burrowing Owl	*Athene cunicularia*	Verified	18
California Gull	*Larus californicus*	Verified	138
Canada Goose	*Branta canadensis*	Verified	5431
Canvasback	*Aythya valisineria*	Verified	925
Cassin's Finch	*Carpodacus cassinii*	Verified	210
Cattle Egret	*Bubulcus ibis*	Verified	7
Cedar Waxwing	*Bombycilla cedrorum*	Verified	1983
Chipping Sparrow	*Spizella passerina*	Verified	17
Cinnamon Teal	*Anas cyanoptera*	Verified	15
Clark's Grebe	*Aechmophorus clarkii*	Verified	10
Common Goldeneye	*Bucephala clangula*	Verified	574
Common Loon	*Gavia immer*	Verified	9
Common Merganser	*Mergus merganser*	Verified	1657
Common Moorhen	*Gallinula chloropus*	Verified	70
Common Yellowthroat	*Geothlypis trichas*	Verified	23
Cooper's Hawk	*Accipiter cooperii*	Verified	369
Costa's Hummingbird	*Calypte costae*	Verified	5
Dark-eyed Junco	*Junco hyemalis*	Verified	15434
Double-crested Cormorant	*Phalacrocorax auritus*	Verified	108
Dunlin	*Calidris alpina*	Verified	2
Eared Grebe	*Podiceps nigricollis*	Verified	292
Ferruginous Hawk	*Buteo regalis*	Verified	274
Fox Sparrow	*Passerella iliaca*	Verified	14
Gadwall	*Anas strepera*	Verified	516
Golden Eagle	*Aquila chrysaetos*	Verified	145
Golden-crowned Kinglet	*Regulus satrapa*	Verified	15
Golden-crowned Sparrow	*Zonotrichia atricapilla*	Verified	14
Great Blue Heron	*Ardea herodias*	Verified	340
Great Egret	*Ardea alba*	Verified	14

RCNCA Migratory Birds And Birds Of Conservation Concern			
Common Name	Scientific Name	Occurrence	Count 1962-2010
Greater White-fronted Goose	*Anser albifrons*	Verified	20
Green Heron	*Butorides virescens*	Verified	10
Green-tailed Towhee	*Pipilo chlorurus*	Verified	3
Green-winged Teal	*Anas crecca*	Verified	910
Hermit Thrush	*Catharus guttatus*	Verified	35
Herring Gull	*Larus argentatus*	Verified	3
House Wren	*Troglodytes aedon*	Verified	11
Killdeer	*Charadrius vociferus*	Verified	1762
Lark Sparrow	*Chondestes grammacus*	Verified	11
Least Sandpiper	*Calidris minutilla*	Verified	29
Lesser Goldfinch	*Spinus psaltria*	Verified	4054
Lesser Scaup	*Aythya affinis*	Verified	1010
Lincoln's Sparrow	*Melospiza lincolnii*	Verified	122
Loggerhead Shrike	*Lanius ludovicianus*	Verified	590
Long-billed Dowitcher	*Limnodromus scolopaceus*	Verified	1
Long-eared Owl	*Asio otus*	Verified	21
Mallard	*Anas platyrhynchos*	Verified	9549
Marsh Wren	*Cistothorus palustris*	Verified	702
Merlin	*Falco columbarius*	Verified	133
Mountain Bluebird	*Sialia currucoides*	Verified	1131
Mourning Dove	*Zenaida macroura*	Verified	10072
Northern Flicker	*Colaptes auratus*	Verified	1578
Northern Harrier	*Circus cyaneus*	Verified	831
Northern Pintail	*Anas acuta*	Verified	479
Northern Shoveler	*Anas clypeata*	Verified	4315
Orange-crowned Warbler	*Oreothlypis celata*	Verified	178
Peregrine Falcon	*Falco peregrinus*	Verified	20
Phainopepla	*Phainopepla nitens*	Verified	2
Pied-billed Grebe	*Podilymbus podiceps*	Verified	793
Pine Siskin	*Spinus pinus*	Verified	1004
Plumbeous Vireo	*Vireo plumbeus*	Verified	1
Prairie Falcon	*Falco mexicanus*	Verified	137
Red-breasted Merganser	*Mergus serrator*	Verified	4
Redhead	*Aythya americana*	Verified	1062
Red-naped Sapsucker	*Sphyrapicus nuchalis*	Verified	155
Red-shouldered Hawk	*Buteo lineatus*	Verified	3
Red-tailed Hawk	*Buteo jamaicensis*	Verified	1761
Red-winged Blackbird	*Agelaius phoeniceus*	Verified	112112
Ring-billed Gull	*Larus delawarensis*	Verified	7102
Ring-necked Duck	*Aythya collaris*	Verified	16405
Ross's Goose	*Chen rossii*	Verified	34
Ruby-crowned Kinglet	*Regulus calendula*	Verified	2063

RCNCA Migratory Birds And Birds Of Conservation Concern			
Common Name	Scientific Name	Occurrence	Count 1962-2010
Ruddy Duck	*Oxyura jamaicensis*	Verified	9415
Sage Sparrow	*Amphispiza belli*	Verified	619
Sage Thrasher	*Oreoscoptes montanus*	Verified	8
Sandhill Crane	*Grus canadensis*	Verified	2
Savannah Sparrow	*Passerculus sandwichensis*	Verified	2243
Say's Phoebe	*Sayornis saya*	Verified	1498
Sharp-shinned Hawk	*Accipiter striatus*	Verified	347
Short-eared Owl	*Asio flammeus*	Verified	1
Snow Goose	*Chen caerulescens*	Verified	41
Snowy Egret	*Egretta thula*	Verified	3
Song Sparrow	*Melospiza melodia*	Verified	3261
Sora	*Porzana carolina*	Verified	45
Spotted Sandpiper	*Actitis macularius*	Verified	4
Spotted Towhee	*Pipilo maculatus*	Verified	771
Swainson's Hawk	*Buteo swainsoni*	Verified	2
Swainson's Thrush	*Catharus ustulatus*	Verified	1
Swamp Sparrow	*Melospiza georgiana*	Verified	9
Townsend's Solitaire	*Myadestes townsendi*	Verified	66
Turkey Vulture	*Cathartes aura*	Verified	5
Vermilion Flycatcher	*Pyrocephalus rubinus*	Verified	31
Vesper Sparrow	*Pooecetes gramineus*	Verified	98
Virginia Rail	*Rallus limicola*	Verified	155
Western Bluebird	*Sialia mexicana*	Verified	297
Western Kingbird	*Tyrannus verticalis*	Verified	1
Western Meadowlark	*Sturnella neglecta*	Verified	12643
Western Sandpiper	*Calidris mauri*	Verified	1
White-crowned Sparrow	*Zonotrichia leucophrys*	Verified	131551
White-winged Dove	*Zenaida asiatica*	Verified	108
Williamson's Sapsucker	*Sphyrapicus thyroideus*	Verified	1
Wilson's Snipe	*Gallinago delicata*	Verified	29
Wilson's Warbler	*Cardellina pusilla*	Verified	2
Wood Duck	*Aix sponsa*	Verified	293
Yellow Warbler	*Setophaga petechia*	Verified	1
Yellow-bellied Sapsucker	*Sphyrapicus varius*	Verified	19
Yellow-headed Blackbird	*Xanthocephalus xanthocephalus*	Verified	25
Yellow-rumped Warbler	*Setophaga coronata*	Verified	1659

APPENDIX H
Special Recreation Management Areas

Beaver Dam Wash National Conservation Area
Beaver Dam Wash Special Recreation Management Area
Recreation Setting Characteristics Matrix

PHYSICAL COMPONENTS Qualities of the Landscape			
Physical Component	Primitive	Backcountry	Frontcountry
Remoteness	Adjacent to primitive motorized routes. No routes are present.	Portions adjacent to paved highway. Primitive motorized routes and mechanized routes with natural surfacing are present.	Adjacent to paved highway. County roads, primitive motorized routes, and mechanized routes with natural surfacing are present.
Naturalness	Undisturbed, natural appearing landscape.	Mostly natural landscape with some livestock grazing modifications.	Landscape partially modified but development does not overpower the natural landscape.
Facilities	No developed trails. No structures present.	Mix of designated dispersed campsites, constructed trails and unmaintained primitive routes. Trail structures consist of infrequent directional and regulatory signs.	Trailhead facilities consist of designated dispersed campsites, fenced parking and interpretive kiosks. Trail structures consist of frequent directional and regulatory signs.

SOCIAL COMPONENTS Qualities Associated with Use			
Social Component	Primitive	Backcountry	Frontcountry
Contacts (average for other groups)	0 to 2 encounters per day.	0 to 5 encounters per day and designated trails.	1 to 6 encounters per day on primitive roads and designated trails.
Group Size (average for other groups)	1 to people per group.	1 to 4 people per group.	2 to 8 people per group.
Evidence of Use	No alteration of the natural terrain. Footprints only observed. Sounds of people rare.	Alteration of the natural terrain limited to primitive roads, designated trails, and user-created trails. Sounds of people and traffic infrequent.	Alteration of the natural terrain consists of graded roads, primitive roads and designated trails with some widening of the tread and impacts to vegetation observed. Sounds of people and traffic frequently heard.

OPERATIONAL COMPONENTS Conditions Created by Management and Controls over Recreation Use			
Operational Component	Primitive	Backcountry	Frontcountry
Access (types of travel allowed)	Foot and horse travel only. Off trail travel allowed.	Four-wheel drive vehicles on primitive roads. Mountain bike, foot, and horse travel on designated trails. No off-trail travel allowed.	Two-wheel drive vehicles on graded roads. Four-wheel drive vehicles on primitive roads. Mountain bike, foot, and horse travel on designated trails. No off-trail travel allowed.
Visitor Services and Interpretation	Detailed maps and brochures available off-site. Staff is not present.	Detailed maps and brochures available off-site. Staff is rarely present.	Detailed maps and brochures available off-site. Directional, regulatory, and interpretive signs are common. Staff is occasionally present.
Managment Controls (signing)	No posting or signing of rules, regulations, or ethical standards. Directional signing is minimum required for public safety.	Basic regulations clearly posted at heavy traffic locations. Directional signs posted at critical primitive road and trail junctions.	Detailed rules, regulations, and ethical standards clearly posted at multiple locations. Directional signs evident at critical road intersections and along trail routes.
Managment Controls (camping)	Dispersed camping allowed. Limited to backpacking and horsepacking.	Dispersed camping allowed at designated sites only.	Dispersed camping allowed at designated sites only.
Management Controls (law enforcement)	Law enforcement and non-LEO Park Rangers rarely patrol. Respond to incidents and rescues only.	Law enforcement and non-LEO Park Rangers patrol infrequently. Respond to incidents and rescues.	Law enforcement and non-LEO Park Rangers patrol occasionally. Respond to incidents and rescues.
Management Controls (monitoing)	Annual recreational impact monitoring conducted.	Monitoring conducted annually to determine maintenance needs and collect information on the extent of visitor impacts.	Monitoring conducted quarterly to annually depending on location to determine maintenance needs and collect information on the extent of visitor impacts.

Existing Setting

Prescribed Setting

Beaver Dam Wash National Conservation Area
Beaver Dam Wash Special Recreation Management Area
RMZ Supporting Information

Introduction

The enabling legislation for the Beaver Dam Wash NCA is Public Law 111-11 of 2009 (OPLMA). It stated that the purpose of the Beaver Dam Wash National Conservation area was: "to conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the National Conservation Area."

The enabling legislation clearly recognized recreation as one of the values of the NCA.

Even though it lacks the heavy, intensive use that the Red Cliffs NCA receives, NCA status has given Beaver Dam Wash a higher profile which has resulted in a corresponding increase in visitation. The area has long been a popular destination for rock climbers as there are classic limestone crags around every corner. The area is also a favorite winter/spring destination for OHV users to experience the Mojave Desert's northern most Joshua tree community and the rugged landscape of the Beaver Dam Mountains juxtaposed against sweeping alluvial floodplains. Upland game bird hunters also enjoy quail hunting on the lower slopes of the Beaver Dam Mountains. Because of the overlap of critical tortoise habitat and a diverse set of increasingly popular recreational activities, Special Recreation Management Area (SRMA) status is proposed in all action alternatives.

SMRA Objectives

Objective Statement—Beaver Dam Wash SRMA

The Beaver Dam Wash SRMA offers high quality sustainable recreation opportunities and visitor services, while conserving and protecting other resource values of the NCA. Participants in visitor assessments would report an average 4.0 realization of the targeted experience and benefit outcomes listed below. (4.0 on a probability scale where: 1 = Not at all realized to 5 = totally realized).

RMZ Objectives: Frontcountry

The Frontcountry RMZ offers high quality sustainable hiking, hunting, camping, mountain biking, rock climbing and equestrian opportunities, while conserving and protecting other resource values of the NCA.

Activities

- ► Upland game bird hunting, ATV riding, and vehicle touring on easily accessible roads and primitive roads

Experiences

- ► Enjoying a wide variety of recreational opportunities
- ► Having the ability to participate in outdoor activities so close to town
- ► Enjoying self-directed exploration

Benefits

- ► Improving outdoor skills and abilities
- ► Escaping everyday responsibilities
- ► Stronger ties with family and friends

RMZ Objectives: Backcountry

The Backcountry RMZ offers challenging, and sustainable backcountry, non-motorized opportunities, while conserving and protecting other resource values of the NCA.

Activities

- ► Hiking, mountain biking on long, challenging trails
- ► Secluded backcountry rock climbing

Experiences

- ► Testing endurance

- ► Sharing challenging outdoor adventure with friends
- ► Experiencing a wide variety of outdoor environments

Benefits

- ► Gaining greater self-confidence
- ► Stronger ties with family and friends
- ► Temporary freedom from urban life

RMZ Objectives: Primitive

The Primitive RMZ offers remote, adventurous, and sustainable non-motorized opportunities, while conserving and protecting other resource values of the NCA.

Activities

- ► Hiking and horseback riding on rugged, challenging, and remote terrain

Experiences

- ► Enjoying strenuous physical exercise
- ► Enjoying risk-taking activities
- ► Developing self-sufficiency

Benefits

- ► Stronger ties with friends through shared experiences
- ► Greater environmental awareness
- ► Increased adaptability to outdoor challenges

Recreation Setting Characteristic Descriptions: Frontcountry

Physical Components

This RMZ is accessed directly from Highway 91. It contains graded County roads and primitive two-tracks. The landscape is partially modified but development does not overpower the natural landscape. Transmission lines in the IPP power line ROW are visible from many areas within the zone. Mechanized routes with natural surfacing are planned and would be a primary recreational component. Road and trail structures would consist of frequent directional, regulatory, and interpretive signs.

Social Components

Visitors to this RMZ can expect between 1-7 encounters per day on primitive roads and trails, with group sizes ranging from 2-8 people per group. Alteration of the natural terrain consists of graded roads, primitive roads, and designated trails. Sounds of people are frequently heard.

Operational Components

Two-wheel drive vehicles are common on roads and four-wheel drive vehicles are common on primitive roads. All traffic, both motorized and non-motorized, is restricted to designated roads and trails. Because this zone is primarily within critical desert tortoise habitat, no off-trail travel is allowed. Dispersed camping is allowed at designated sites only, each of which is marked and contains a metal campfire ring. Detailed maps and brochures are available off-site and directional, regulatory, and interpretive signs are common. Detailed rules, regulations, and ethical standards clearly posted at multiple locations. Directional signs evident at critical locations and along trail routes. Law enforcement and non-LEO Park Rangers patrol this zone occasionally, but primarily respond to incidents and rescues. Monitoring is conducted quarterly depending on location to determine maintenance needs and collect information on the extent of off-trail impacts.

Recreation Setting Characteristic Descriptions: Backcountry

Physical Components

This RMZ is accessed primarily from the Frontcountry Zone, and in some locations, directly from County roads or Old Highway 91. It contains primitive roads that are used for ATV riding, hunting, and rock climbing access. The

landscape is mostly natural with some livestock grazing modifications. Transmission lines and water utility structures are visible in a few locations. A mix of maintained and unmaintained, natural surface primitive roads and non-motorized routes are the primary recreation component. Primitive road and trail structures consist of infrequent directional and regulatory signs.

Social Components

Visitors to this RMZ can expect between 1-6 encounters per day on primitive roads and designated trails, with group sizes ranging from 1–5 people per group. Larger groups are rare in this zone. Alteration of the natural terrain limited to primitive two-tracks and trails. Sounds of other people are infrequent. Solitude can be found in this zone.

Operational Components

Four-wheel drive vehicles are occasionally seen on primitive roads. All traffic, both motorized and non-motorized, is restricted to designated roads and trails. Because this zone is partially within critical desert tortoise habitat, no off-trail travel is allowed. Dispersed camping may be allowed in designated sites only. Detailed maps and brochures available off-site and basic regulations are posted at heavy traffic locations. Directional signs are the minimum required for public safety. Law enforcement and non-LEO Park Rangers patrol infrequently and their main interaction with this zone is response to incidents and rescues. Monitoring is conducted annually depending on location to determine maintenance needs and collect information on the extent of off-trail impacts.

Recreation Setting Characteristic Descriptions: Primitive

Physical Components

This RMZ has a few primitive roads that were closed by Congress in OPLMA. It is accessed primarily from the Frontcountry and Backcountry Zones and in one location, directly from a maintained County road. The landscape is undisturbed and natural appearing. No structures are present.

Social Components

Visitors to this RMZ can expect between 0-2 encounters per day, with group size ranging from 1 to 4 people per group. Alteration of the natural terrain consists of user created trails. Sounds of other visitors are rare. Solitude can be found throughout this zone.

Operational Components

Travel is limited to foot and horse traffic only and off trail travel is allowed. Dispersed camping is allowed but limited to backpacking and horsepacking. Detailed maps and brochures are available off-site. Rules, regulations, and ethical standards are posted outside the zone boundary. Law enforcement and non-LEO Park Rangers do not patrol and their main interaction with this zone is response to incidents and rescues. Monitoring is conducted annually depending on location to determine maintenance needs and collect information on the extent of off-trail impacts.

Management Actions and Allowable Use Decisions

Recreation and Visitor Services Program

The key component of SRMA management used to protect setting characteristics will be the development of a Recreation Master Plan. The RAMP will identify specific management actions for recreational activities and visitor services within the SRMA and would include, but is not limited to:

- ► Non-motorized trail standards;
- ► Motorized routes;
- ► Rock climbing;
- ► Dispersed camping;
- ► Architectural design standards ;
- ► Recreational impact monitoring standards and procedures.

Other Programs

Section 1975 (a) of OPLMA mandates the Secretary, to develop a comprehensive management plan for the Beaver Dam Wash NCA to achieve the following Congressionally-defined purposes:

To conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the NCA

OPLMA specifically restricts allowable uses by withdrawing the public lands of this NCA, subject to valid existing rights, from:

all forms of entry, appropriation, and disposal under the public land laws;

- location, entry, and patenting under the mining laws; and
- operation of the mineral leasing, mineral materials, and geothermal leasing laws.

These Congressional actions, combined with the existing critical desert tortoise habitat inside the NCA, provide overarching protection for recreation settings in the Beaver Dam Wash SRMA. It restricts all recreation activities outside the Rural Zone to non-motorized modes of travel.

Implementation Decisions

The primary implementation decision required for the long term success of the Beaver Dam Wash SRMA is completion of the St. George field Office Travel Management Plan. The travel planning effort is on a separate, but parallel track to this land use planning effort and its release will follow closely behind this plan.

There is an implementation decision in Chapter 2 that states "Construct new trails in the Rural, Frontcountry, or Backcountry Zones, as shown in the Travel Management Plan for Alternative (B, C, D)." This is an implementation decision and it was included because the travel plan is certainly the most anticipated part of the current SGFO planning efforts.

The travel plan for the NCA mirrors the aspirational goals of the individual alternatives in this plan. But it also recognizes the reality that the NCA contains critical desert tortoise habitat. The travel plan is based on the assumption that the greater St. George metropolitan area will continue to grow and visitation to the NCA will rise at a corresponding rate. In order to effectively manage recreational use and protect critical habitat, the trail system must provide the experience that visitors are seeking.

Red Cliffs National Conservation Area
Red Cliffs Special Recreation Management Area
Recreation Setting Characteristics Matrix

PHYSICAL COMPONENTS Qualities of the Landscape				
Physical Component	Primitive	Backcountry	Frontcountry	Rural
Remoteness	Within ½ mile of paved municipal roads, highways, and unpaved County roads. Primitive routes are present.	Within ¼ mile of paved municipal roads, highways, and unpaved County roads. Mechanized routes with natural surfacing are present.	Adjacent to paved municipal roads, highways, and unpaved County roads Unpaved utility roads and mechanized routes with natural surfacing are present.	Paved municipal roads, highways, and unpaved County roads are present.
Naturalness	Undisturbed, natural appearing landscape. Boundary corresponds with designated wilderness.	Mostly natural landscape with some modifications. Transmission lines and water utility structures visible in some locations.	Landscape partially modified with development dominating the natural landscape in a few areas. Paved and unpaved roads and utility developments are typically visible.	Natural landscape considerably modified. Utility development, paved highways, municipal subdivisions, and campgrounds dominate the landscape.
Facilities	Trails are unmaintained primitive routes, typically in washes. No structures present.	Mix of maintained and unmaintained trails. Trail structures consist of infrequent directional and regulatory signs.	Maintained and marked trails. Trail structures consist of frequent directional, regulatory, and interpretive signs.	Facilities consist of paved roads, campgrounds, restrooms, day-use areas, fenced parking, and interpretive kiosks.

SOCIAL COMPONENTS Qualities Associated with Use				
Social Component	Primitive	Backcountry	Frontcountry	Rural
Contacts (average for other groups)	0 to 3 encounters per day on primitive routes.	1 to 6 encounters per day and designated trails.	2 to 12 encounters per day on designated trails.	5 to 40 encounters per day in campgrounds and at developed trailheads.
Group Size (average for other groups)	1 to 3 people per group.	1 to 6 people per group.	2 to10 people per group.	2 to 15 people per group.
Evidence of Use	Alteration of the natural terrain consists of user created trails. Sounds of other visitors rare.	Alteration of the natural terrain limited to designated trails with some widening of the tread. Sounds of other visitors infrequent.	Alteration of the natural terrain limited to designated trails. Trail braiding is common. Sounds of people frequently heard.	Large areas of alteration prevalent. Paved surfaces common. Sounds of people constantly heard.

OPERATIONAL COMPONENTS Conditions Created by Management and Controls over Recreation Use				
Operational Component	Primitive	Backcountry	Frontcountry	Rural
Access (types of travel allowed)	Foot and horse travel only. Off trail travel allowed	Four-wheel drive vehicles on administrative roads. Mountain bike, foot, and horse travel on designated trails. No off-trail travel allowed.	Two-wheel drive vehicles on administrative roads. Mountain bike, foot, and horse travel on designated trails. No off-trail travel allowed.	Ordinary highway auto and truck traffic on paved and unpaved, graded roads. Off trail travel allowed by non-motorized users.
Visitor Services and Interpretation	Detailed maps and brochures available off-site. Staff is not present.	Detailed maps and brochures available off-site. Staff is rarely present.	Detailed maps and brochures available off-site. Directional, regulatory, and interpretive signs are common. Staff is occasionally present.	Detailed maps and brochures available on and off-site. Directional, regulatory, and interpretive kiosks at all entry points. Staff is consistently present.
Managment Controls (signing)	No posting or signing of rules, regulations, or ethical standards. Directional signing is minimum required for public safety.	Basic regulations clearly posted at heavy traffic locations. Directional signs posted at critical trail junctions.	Detailed rules, regulations, and ethical standards clearly posted at multiple locations. Directional signs evident at critical locations and along trail routes.	Comprehensive rules, regulations, and ethical standards clearly posted at all access points. Directional signing evident on roads and at trailheads.
Managment Controls (camping)	Dispersed camping allowed. Limited to backpacking and horsepacking.	Dispersed camping allowed at designated sites only.	Dispersed camping not allowed.	Camping allowed in the Red Cliffs Campground and Sand Cove Primitive Campground only. Dispersed camping not allowed.
Management Controls (law enforcement)	Law enforcement and non-LEO Park Rangers rarely patrol. Respond to incidents and rescues only.	Law enforcement and non-LEO Park Rangers patrol infrequently. Respond to incidents and rescues.	Law enforcement and non-LEO Park Rangers patrol occasionally. Respond to incidents and rescues.	Law enforcement and non-LEO Park Rangers patrol on a regular basis. Respond to incidents and rescues.
Management Controls (monitoing)	Annual wilderness impact monitoring conducted.	Monitoring conducted annually to determine maintenance needs and collect information on the extent of visitor impacts.	Monitoring conducted monthly to bi-annually depending on location to determine maintenance needs and collect information on the extent of visitor impacts.	Monitoring conducted daily to weekly in high use areas to determine maintenance needs and collect information on the visitor impacts.

Existing Setting

Prescribed Setting

Red Cliffs National Conservation Area
Red Cliffs Special Recreation Management Area
RMZ Supporting Information

Introduction

The enabling legislation for the Red Cliffs NCA is Public Law 111-11 of 2009 (OPLMA). It stated that the purpose of the Red Cliffs National Conservation area was: "to conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the National Conservation Area."

The enabling legislation clearly recognized recreation as one of the values of the NCA.

Even though it lacked an official BLM Special Recreation Management Area (SRMA) designation, the NCA has been effectively managed as an SRMA since the adoption of the Public Use Plan (PUP) for the Red Cliffs Desert Reserve in June 2000. This document was tiered to the Washington County Habitat Conservation Plan and it recognized the value of this open space for dispersed, non-motorized recreation opportunities. It also recognized that recreational use needs to be intensively managed in order to protect the critical desert tortoise habitat that was the driving force behind the Reserve. Because of the overlap of critical habitat, urban interface, and existing recreation management, SRMA status is proposed in all action alternatives.

SMRA Objectives

Objective Statement—Red Cliffs NCA

The Red Cliffs SRMA offers high quality sustainable recreation opportunities and visitor services, while conserving and protecting other resource values of the NCA.

RMZ Objectives: Rural

The Rural RMZ offers high quality, sustainable, family-friendly activities and educational opportunities, while conserving and protecting other resource values of the NCA.

Activities

- ► Car camping at the Red Cliffs Recreation Area
- ► Day-use activities like picnicking and visiting interpretive displays
- ► Exploring interpreted archaeological and paleontological sites

Experiences

- ► Participating in self-education activities
- ► Enjoying family and friends

Benefits

- ► Stronger ties with family and friends
- ► Greater respect for cultural heritage
- ► Temporary freedom from urban life

RMZ Objectives: Frontcountry

The Frontcountry RMZ offers high quality sustainable non-motorized recreation opportunities, while conserving and protecting other resource values of the NCA.

Activities

- ► Hiking, biking, and horseback riding on easily accessible trails
- ► Rock climbing just minutes from the urban interface

Experiences

- ► Enjoying a wide variety of recreational opportunities
- ► Having the ability to participate in outdoor activities so close to town
- ► Getting much needed exercise

Benefits

- ► Improving outdoor skills and abilities
- ► Gaining greater self-confidence
- ► Escaping everyday responsibilities

RMZ Objectives: Backcountry

The Backcountry RMZ offers challenging, and sustainable backcountry, non-motorized opportunities, while conserving and protecting other resource values of the NCA.

Activities

- ► Hiking, biking, and horseback riding on long, challenging trails

Experiences

- ► Testing endurance
- ► Sharing challenging outdoor adventure with friends
- ► Experiencing a wide variety of outdoor environments

Benefits

- ► Stronger ties with family and friends
- ► Temporary freedom from urban life
- ► Increased adaptability to outdoor challenges

RMZ Objectives: Primitive

The Primitive RMZ offers remote, adventurous, and sustainable non-motorized opportunities, while conserving and protecting other resource values of the NCA.

Activities

- ► Hiking and horseback riding on rugged, challenging, and remote terrain
- ► Traditional rock climbing on remote crags

Experiences

- ► Enjoying strenuous physical exercise
- ► Enjoying risk-taking activities
- ► Developing self-sufficiency

Benefits

- ► Stronger ties with friends through shared experiences
- ► Greater environmental awareness
- ► Increased adaptability to outdoor challenges

Recreation Setting Characteristic Descriptions: Rural

Physical Components

This RMZ contains all roads, trailheads and access points for the NCA, including paved municipal roads, highways, and unpaved County roads. It includes highly developed areas like the Red Cliffs Recreation Area. Power lines, water facilities, paved highways, and municipal subdivisions are immediately adjacent and dominate the landscape. Facilities in this RMZ consist of paved roads, campgrounds, restrooms, day-use areas, fenced parking, and interpretive kiosks.

Social Components

Visitors to this RMZ can expect people to be everywhere, even during the week. 5-40 encounters per day in campgrounds and at developed trailheads is common. Group sizes range from 2-15 people per group with the larger groups primarily in developed day-use areas. Large areas of alteration prevalent and paved surfaces are common. Sounds of other visitors are everywhere. Comprehensive signage that contains rules, regulations, and ethical standards are clearly posted at all access points.

Operational Components

Visitors to this RMZ can expect a steady stream of highway auto and truck traffic on paved and unpaved, graded roads. This RMZ has the highest number of operational controls. Detailed maps and brochures available both on and off-site. Directional, regulatory, and interpretive kiosks can be found at all trailheads and entry points. Staff is consistently present and Law enforcement and non-LEO Park Rangers patrol on a regular basis. Directional signing is evident on roads and at trailheads. Camping is allowed in the Red Cliffs Campground and Sand Cove Primitive Campground only. Dispersed camping is not allowed. Monitoring is conducted daily to weekly in high use areas to determine maintenance needs and collect information on the visitor impacts.

Recreation Setting Characteristic Descriptions: Frontcountry

Physical Components

This RMZ is accessed from the roads and trailheads in the Rural Zone. It is adjacent to paved municipal roads, highways, and unpaved County roads. It contains unpaved utility roads that are used for administrative access to electrical and water utilities. The landscape is partially modified with development dominating the natural landscape in a few areas. Paved and unpaved roads and utility developments are visible from many areas within the zone. Mechanized routes with natural surfacing that are maintained and marked are the primary recreational component. Trail structures consist of frequent directional, regulatory, and interpretive signs.

Social Components

Visitors to this RMZ can expect between 2-12 encounters per day on designated trails, with group sizes ranging from 2-10 people per group. Larger groups are often part of commercial hiking, biking, and climbing permit holders and are accompanied by guides. Alteration of the natural terrain limited to designated trails. Because use is typically heavy, trail braiding is common, particularly where equestrian use is common. Sounds of people frequently heard but considerably less than the Rural Zone.

Operational Components

Two-wheel drive vehicles that service water and power utilities are common on administrative roads. Mountain bike, foot, and horse travel is allowed on designated trails only. Because this zone is primarily within critical desert tortoise habitat, no off-trail travel or dispersed camping is allowed. Detailed maps and brochures are available off-site and directional, regulatory, and interpretive signs are common. Detailed rules, regulations, and ethical standards clearly posted at multiple locations. Directional signs evident at critical locations and along trail routes. Law enforcement and non-LEO Park Rangers patrol this zone occasionally, but primarily respond to incidents and rescues. Monitoring is conducted monthly to biannually depending on location to determine maintenance needs and collect information on the extent of off-trail impacts.

Recreation Setting Characteristic Descriptions: Backcountry

Physical Components

This RMZ is accessed primarily from the Frontcountry Zone and in some locations, directly from the Rural Zone. It is within ¼ mile of paved municipal roads, highways, and unpaved County roads. It contains a few unpaved utility roads that are used for administrative access to electrical and water utilities. The landscape is mostly natural with some modifications. Transmission lines and water utility structures are visible in some locations. A mix of maintained and unmaintained, natural surface mechanized routes are the primary recreation component. Trail structures consist of infrequent directional and regulatory signs.

Social Components

Visitors to this RMZ can expect between 1-6 encounters per day on designated trails, with group sizes ranging from 1–6 people per group. Larger groups are rare in this zone. Alteration of the natural terrain limited to designated trails with some widening of the tread. Sounds of other people are infrequent. Solitude can be found in this zone.

Operational Components

Four-wheel drive vehicles that service water and power utilities are occasionally seen on administrative roads. Mountain bike, foot, and horse travel is allowed on designated trails only. Because this zone is partially within critical

desert tortoise habitat, no off-trail travel is allowed. Dispersed camping may be allowed in designated sites only. Detailed maps and brochures available off-site and basic regulations are posted at heavy traffic locations. Directional signs are the minimum required for public safety. Law enforcement and non-LEO Park Rangers patrol infrequently and their main interaction with this zone is response to incidents and rescues. Monitoring is conducted annually depending on location to determine maintenance needs and collect information on the extent of off-trail impacts.

Recreation Setting Characteristic Descriptions: Primitive

Physical Components

This RMZ corresponds with designated wilderness. It is accessed primarily from the Frontcountry and Backcountry Zones and in one location, directly from the Rural Zone. It is within ½ mile of paved municipal roads, highways, and unpaved County roads. The landscape is undisturbed and natural appearing. Primitive, unmaintained routes are present, and are primarily in washes or across slickrock. No structures are present.

Social Components

Visitors to this RMZ can expect between 0-3 encounters per day on primitive routes, with group size ranging from 1 to 3 people per group. Alteration of the natural terrain consists of user created trails. Sounds of other visitors are rare. Solitude can be found throughout this zone.

Operational Components

Travel is limited to foot and horse traffic only, and off trail travel allowed. Dispersed camping is allowed but limited to backpacking and horsepacking. Detailed maps and brochures are available off-site. Rules, regulations, and ethical standards are posted outside the wilderness boundary. Law enforcement and non-LEO Park Rangers rarely patrol and their main interaction with this zone is response to incidents and rescues. Annual wilderness character monitoring conducted.

Management Actions and Allowable Use Decisions

Recreation and Visitor Services Program

The key component of SRMA management used to protect setting characteristics will be the development of a Recreation Master Plan. The RAMP will identify specific management actions for recreational activities and visitor services within the SRMA and would include, but is not limited to:

- Non-motorized trail standards;
- Motorized routes;
- Rock climbing;
- Developed camping;
- Dispersed camping;
- Architectural design standards ;
- Recreational impact monitoring standards and procedures.

Other Programs

Section 1974 (a) of OPLMA mandates the Secretary, to develop a comprehensive management plan for the Red Cliffs NCA to achieve the following Congressionally-defined purposes:

To conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the NCA

OPLMA specifically restricts allowable uses by withdrawing the public lands of this NCA, subject to valid existing rights, from:

- all forms of entry, appropriation, and disposal under the public land laws;
- location, entry, and patenting under the mining laws; and
- operation of the mineral leasing, mineral materials, and geothermal leasing laws.

These Congressional actions, combined with the existing Washington County Habitat Conservation Plan provide overarching protection for recreation settings in the Red Cliffs SRMA. It restricts all recreation activities outside the Rural Zone to non-motorized modes of travel.

Implementation Decisions

The primary implementation decision required for the long term success of the Red Cliffs SRMA is completion of the St. George field Office Travel Management Plan. The travel planning effort is on a separate, but parallel track to this land use planning effort and its release will follow closely behind this plan.

There is an implementation decision in Chapter 2 that states “Construct new trails in the Rural, Frontcountry, or Backcountry Zones, as shown in the Travel Management Plan for Alternative (B, C, D).” This is an implementation decision and it was included because the travel plan is certainly the most anticipated part of the current SGFO planning efforts. In the NCA, the travel plan is considered crucial because it proposes a complete overhaul of the existing non-motorized trail network.

The travel plan for the NCA mirrors the aspirational goals of the individual alternatives in this plan. But it also recognizes the reality that the NCA is the urban interface for the greater St. George metropolitan area and recreational visits will continue to grow. The travel plan is based on the assumption that in order to eliminate illegal trail use and protect critical habitat, the trail system must provide the experience that visitors are seeking. To do this, some new trail construction has to occur.

APPENDIX I

Criteria for the Placement of Natural Surface Trails

The following criteria are used to determine suitable locations for new trails and trail reroutes within the Beaver Dam Wash and Red Cliffs NCAs. This document utilizes terminology from the Recommended Standardized Trail Terminology for Use in Colorado (COTI 2005).

These criteria are to be followed as guidelines. Not all of the criteria can be met on every segment of every trail. Their purpose is to help create sustainable, low maintenance trails that provide quality recreation experiences on the basis of predetermined trail management objectives (TMOs). Specialty trails requiring higher maintenance may be allowed in appropriate locations.

1. Know and understand trail management objectives. TMO's provide the framework for what the trail will look like, who will be using the trail, and how the trail will be managed. Different TMO's may allow different applications of the criteria below.
2. Create loops and avoid dead end trails. All trails should begin and end at a trailhead or another trail. A well-planned stacked loop trail system offers a variety of trail options. Easier, shorter loops are arranged close to the trailhead, with longer, more challenging loops extending further beyond the trailhead. Occasionally, destination trails to a point of interest will require an out-and-back trail, but only if they cannot be reasonably incorporated into a loop.
3. Identify control points and use them to guide trail design and layout. Control points are specific places or features that influence where the trail goes. Basic control points include the beginning and end of the trail, property boundaries, intersections, drainage crossings, locations for turns, and other trails.
4. Positive control points are places where you want users to visit, including scenic overlooks, historic sites, waterfalls, rock outcroppings, lakes, rivers and other natural features or points of interest. If the trail does not incorporate these features, users will likely create unsustainable social trails to get to them.
5. Negative control points are places you want users to avoid, such as low-lying wet areas, flat ground, extremely steep cross slopes or cliffs, unstable soils, environmentally sensitive areas, sensitive archaeological sites, safety hazards, and private property.
6. Knowing these control points provides a design framework. Try to connect the positive control points while avoiding the negative control points
7. Use cross slope and avoid flat ground whenever possible. The trail tread should generally run perpendicular to the cross slope and should utilize frequent grade reversals. This is the best way to keep water off the trail. Use curvilinear design principles to create a trail that follows the natural contours of the topography, sheds water, blends with the surrounding terrain, and provides fun recreation opportunities.
8. The following grade guidelines will help determine appropriate tread locations.
9. The Half Rule: "A trail's grade shouldn't exceed half the grade of the hillside or sideslope (cross slope) that the trail traverses. If the grade does exceed half the sideslope, it's considered a fall-line trail. Water will flow down a fall-line trail rather than run across it. For example, if you're building across a hillside with a (cross slope) of 20 percent, the trail-tread grade should not exceed 10 percent" (IMBA 2004). Steeper cross slopes allow more flexibility for sustainable tread grades while flat or low angle cross slopes can be problematic. There is an upper limit to this rule. Sustaining a 24 percent tread grade, even on a 50 percent cross slope is unlikely. Additionally, trail segments may break this rule on durable tread surfaces such as solid rock.
10. The Ten Percent Average Guideline: The average trail grade over the length of the trail should be 10 percent or less for greatest sustainability. Short sections of the trail may exceed this, but the overall grade should remain at 10 percent or less.
11. Maximum Sustainable Grade: This is the upper grade limit for those short trail segments that push the limits of the previous two guidelines. It is determined by a site-specific analysis that is based on TMO's, environmental conditions, and observations of existing trails – what's working, and what's not?

12. Grade Reversals: Frequent changes in the direction of tread grade (gentle up and down undulations) will ensure that water is forced off the trail at frequent intervals.
13. Locate trails in stable soils. Avoid clays, deep loam and soils that do not drain rapidly. Consider season of use and type of use. The capabilities of motorized vehicles to function in wet/muddy conditions make it imperative to avoid unstable or poorly drained soils. Trails that are less likely to be used when wet may be located in less-desirable soils if necessary. In western Colorado's arid environment, the best soil conditions for trails are those with high rock content.
14. Drainage crossings are key control points and should be selected carefully. Consider both the trail's impact on the drainage (erosion and sedimentation), and the drainage's impact on the trail (changing tread surface, water channeling onto trail). The trail should descend into and climb out of the drainage to prevent water from flowing down the trail. Avoid long or steep entries into drainages. Design grade reversals into the trail on each side of the approach to minimize water and sediment entering from the trail. Look for drainage crossings on rock.
15. Dry washes can be excellent travel ways. They are well defined, contain noise, and are periodically resurfaced by flowing water. As long as the wash does not support riparian vegetation and has no major safety problems, like water falls, they are well suited to be part of a recreational trail system.
16. Avoid switchbacks. Switchbacks are difficult, time-consuming, and expensive to construct, and require regular maintenance. Users often cut them, causing avoidable impacts. Utilizing curvilinear design principles eliminates the need for most switchbacks. Climbing turns are easier to construct and maintain and utilize natural terrain features (benches, knolls, rock outcrops) to change the direction of a trail.
17. Avoid ridge tops. Ridge tops are often primary transportation corridors for wildlife, and were often used by Native Americans as travel routes. Noise from ridge top trails is broadcast over a wide area. Locate trails on side hills, off ridge tops, using ridges and watersheds as natural sound barriers to isolate noise.
18. Use vegetation and other natural features to conceal the trail and absorb noise. This can be difficult in a desert environment. Try to minimize the visual impact of the trail by following natural transitions in vegetation or soil type. A trail near the base of a sideslope or on rimrock is usually less visible than a mid-slope trail. Denser vegetation will hide a trail, lessen noise transmission, and can dissipate the energy of falling raindrops on the bare soil of the trail tread.
19. Carefully design intersections to avoid safety problems. When locating a bicycle or motorized vehicle trail be aware of sighting distance and sight lines. Collisions can be avoided if riders can see each other. Avoid four way intersections. Offsetting the cross traffic helps reduce speeds and reduces the risk of collisions.

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APPENDIX J

Actual Use in the Beaver Dam Wash NCA Grazing Allotments

Table J-1 Actual Use in the Beaver Dam Wash NCA Grazing Allotments 1993-2003

Table J-1 Actual Use in the Beaver Dam Wash NCA Grazing Allotments 1993-2003											
Allotment (Annually Permitted AUMs)	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Beaver Dam Slope (2708)											
Actual Use (AUMs)	1573	1783	1850	1965	1557	2217	2058	1525	1395	1390	511
Percent Use	58.1%	65.8%	68.3%	72.6%	57.5%	81.9%	76.0%	56.3%	51.5%	51.3%	18.9%
Scarecrow Peak (4582)											
Actual Use (AUMs)	3645	3367	3973	2684	3452	3708	3228	2221	2850	1440	890
Percent Use	79.6%	73.5%	86.7%	58.6%	75.3%	80.9%	70.4%	48.5%	62.2%	31.4%	19.4%
Castle Cliffs (514)											
Actual Use (AUMs)	252	309	323	317	266	422	431	360	381	322	100
Percent Use	49.0%	60.1%	62.8%	61.7%	51.8%	82.1%	83.9%	70.0%	74.1%	62.6%	19.5%
Cedar Pockets (375)											
Actual Use (AUMs)	No Data	No Data	No Data	No Data	93	57	64	103	209	211	203
Percent Use	-	-	-	-	24.8%	15.2%	17%	27.4%	55.7%	56.2%	54.1%

Table J-2 Actual Use in the Beaver Dam Wash NCA Grazing Allotments 1993-2003

Table J-2 Actual Use in the Beaver Dam NCA Grazing Allotments 2004-2013										
Allotment (Annually Permitted AUMs)	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Beaver Dam Slope (2708)										
Actual Use (AUMs)	807	1478	958	909	1867	1491	1673	1758	1762	2016
Percent Use	29.8%	54.6%	35.4%	33.6%	68.9%	55.1%	61.8%	64.9%	65.1%	74.4%
Scarecrow Peak (4582)										
Actual Use (AUMs)	1409	2891	2227	2150	2646	2190	2357	3303	1837	3593
Percent Use	30.8%	63.1%	48.6%	46.9%	57.7%	47.8%	51.4%	72.1%	40.1%	78.1%
Castle Cliffs (514)										
Actual Use (AUMs)	274	382	403	131	219	387	404	471	465	495
Percent Use	53.3%	74.3%	78.4%	25.5%	42.6%	75.3%	78.6%	91.6%	90.5%	96.3%
Cedar Pockets (375)										
Actual Use (AUMs)	203	203	185	14	240	146	64	260	334	283
Percent Use	54.1%	54.1%	49.3%	3.7%	64%	38.9%	9%	69.3%	89%	75.4%

APPENDIX K

Linear Disturbance Study in Red Cliffs NCA 2012

As part of the HCP implementation, Washington County fenced across all critical access points and urban interface boundaries in the Reserve, to prevent motorized vehicle intrusions and unauthorized uses Motorized intrusions still occur, but they are infrequent and rarely occur in critical habitat.

In 2000, the PUP designated approximately 178 miles of non-motorized trails (Table K-1) and associated trailheads at the most heavily used access points as available for public recreation use. Of the 178 trail miles, 44 miles (26%) were existing two-track roads, the majority of which were power line or water line maintenance roads. Nine miles (3%) were paved bicycle/pedestrian trails along State Highway 18 and the Red Hills Parkway. Primitive routes, which were unmarked, undeveloped, and unmaintained trails, totaled approximately 47 miles (27%). Primitive routes, because of their popularity, were included on visitor maps and interpretive publications. Developed and maintained singletrack totaled 79 miles (44%).

All other roads, trails, and linear disturbances not included in the 178 mile authorized trail system were officially closed. At the time the PUP was implemented, it was assumed that the new trail system, cobbled together as it was from a disparate mix of roads, two-tracks, and horse trails, would meet the recreational demands of the greater St. George metropolitan area well into the future. When implementation occurred in the late 90's, non-motorized recreation on natural surface trails was not considered to be in high demand and given that the primary objective of the Reserve was to protect tortoise habitat, designation of the new trail system was considered a reasonable decision.

Implementation of the HCP freed up adjacent private lands for development and the housing boom that followed saw a steady influx of new residents. Between 2000 and 2007, the population of the greater St. George metropolitan area grew an average of 7% annually. Many of the newcomers were active retirees, drawn by Washington County's warm weather and abundant recreational opportunities. This population increase is considered the beginning of the boom in local non-motorized recreation, driven primarily by increasing numbers of road cyclists, triathletes, hikers, rock climbers, and mountain bikers.

An increase in recreational visits to the Reserve mirrored the population increase, and it was at this point that deficiencies in the existing trail system began to surface. Local realtors were advertising homes "adjacent to the Red Cliffs Desert Reserve" and new residents seeking recreational experiences on heavily promoted "nearby hiking trails" were disappointed when they realized that this meant hiking on power line roads, old two-tracks, and other linear disturbances created by ranching and utility infrastructure. Predictably, local residents began to pioneer new routes that produced the kind of backcountry experience they were seeking.

This increase in unauthorized use did not go unnoticed by HCP and BLM staff, and in an attempt to document the problems that were occurring, the Reserve implemented the recreational impact monitoring plan described in 3.39.1.3. The monitoring plan was structured to do two things: monitor potential degradation of the existing trail system, and document new off-trail impacts that deviated from the existing system. Monitoring is performed annually by Northern Arizona University and has produced mixed results. Further analysis has shown the program to be largely unsuccessful. There are three reasons for this:

1. The program monitors only the existing authorized trail system. This ignores many of the impacts that are occurring adjacent to subdivisions that have no physical access to the trail system.
2. The monitoring program documents impacts to the trail tread itself. This is of little value beyond documenting the need for trail maintenance. While changes in trail width does mean that a loss of habitat is occurring it is unclear how this information could be used to curtail habitat degradation, or even if it would be worthwhile.

Table K-1 Miles of Non-Motorized Trails by Route Type

	Road	Paved Trail	Singletrack Trail	Primitive Route	Total
Upland Zone	12	0	18	36	66
Lowland Zone	32	9	61	12	113
Miles Overall	44	9	79	47	178

3. The monitoring process documents the number of illegal trails that deviate from the system as well as the type of user causing the impact. The program does not capture the length, width, and use levels of these illegal trails, it only documents that there is a linear disturbance that deviates from an authorized trail.

No studies had been conducted that accurately mapped unauthorized linear disturbances within the Reserve, so as part of this planning effort the SGFO conducted a thorough analysis.

The project began in the summer of 2012 with a spatial analysis using high resolution aerial imagery to capture all unauthorized linear disturbances within the Reserve/NCA boundary. Digital, georeferenced aerial photographs that were recorded in 2011 were employed. All images had a minimum resolution of 1-meter which allowed for accurate mapping. A vector data set was produced by digitizing all visible linear disturbances found on the imagery.

These data were then loaded into resource-grade GPS units running a mobile GIS program and the data was "ground-truthed" in the field. The field work also included the use of GPS-enabled digital cameras. Every unauthorized linear disturbance within the Reserve/NCA was mapped and documented in its entirety, utilizing the following data collection procedures:

- ► The presence or absence of each linear disturbance was verified;
- ► The length of each verified linear disturbance was documented;
- ► The average width of each verified linear disturbance was documented;
- ► A georeferenced photograph(s) was taken of each linear disturbance;
- ► The user type for each linear disturbance was recorded by documenting the type and volume of visible tracks.

Because motorized uses have been eliminated from the Reserve/NCA, the linear disturbances were in use by non-motorized users only. The following non-motorized uses (or combination of uses) were documented:

- ► Hikers;
- ► Mountain Bikers;
- ► Equestrians.

The use level of each linear disturbance was mapped by documenting the number of tracks and their relative density and frequency. The following criteria were used:

- ► Light – used twice a week or less;
- ► Medium – between twice a week and daily;
- ► Heavy – multiple users daily;
- ► Historic – used in the past, but no current tracks;
- ► Does Not Exist – could not locate a disturbance.

This effort produced the following data:

- ► The length of each disturbance;
- ► The average width of each disturbance (Table K-2);
- ► Who was using each linear disturbance;
- ► How often each linear disturbance was being used (Table K-3).

Once the data had been collected and compiled, three spatial intersections were performed. The first categorized all linear disturbances by HCP Management Zone (Zones 1-5) (Table K-4). The second did the same for the Recreation Management Zone (Upland/Lowland Zone) (Table K-5). Finally, the third intersection captured miles of linear disturbance by land owner or managing agency (BLM, SITLA, State Parks, Private) (Table K-6).

While the linear disturbance mapping was being conducted, a separate but related analysis was performed using historical aerial photography. Digital, georeferenced ortho-photography from 1990 was used to determine if the linear disturbance existed prior to the creation of the Reserve; the 1990 photography was the closest available data to the creation date of the Reserve. Table K-7 shows the number of linear disturbances that existed prior to 1990 and the number of disturbances created after 1990.

These data were used in Chapter Four to assist in the following analyses:

- ► Measure the cumulative effects of non-motorized recreational use to tortoise habitat ;
- ► Analyze the effectiveness of the existing authorized trail system;
- ► Analyze whether changes to the authorized trail system could reduce unauthorized use.

Analysis of the data shows that there are 83 miles of unauthorized routes being used in the Red Cliffs Desert Reserve at least once a week, with 51 of those miles in critical tortoise habitat. Given that these disturbances were all closed to the public in 1999, the data suggests that the current trail system is inadequate for the number of users, insufficiently maintained, and ineffectively patrolled.

Table K-2 Average Width of Linear Disturbance

	< 2 Ft	2 ft avg	4 ft avg	6ft avg	8ft avg	> 8ft	Total Miles
Average Width -- Miles	6	26	16	27	22	5	102

Table K-3 Miles of Linear Disturbance by Use Level

	Historical Use	Light Use	Medium Use	Heavy Use	Total Miles
Linear Disturbance – Miles	19	31	36	16	102

Table K-4 Linear Disturbances by HCP Management Zone

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Linear Disturbance – Miles	1	11	67	21	4
Percentage of Total Miles	1	11	64	20	4

Table K-5 Linear Disturbances by Recreation Management Zone

	Lowland Zone	Upland Zone	Total
Linear Disturbance – Miles	68	34	102

Table K-6 Linear Disturbances by Managing Agency

	BLM	State Parks	SITLA	State – DWR	Private
Linear Disturbance – Miles	75	7	9	.25	13
Percentage of Total Miles	72	7	9	<1	12

Table K-7 Approximate Date When Linear Disturbance was Created

	Existed Prior to 1990	Created After 1990	Total Miles
Linear Disturbance – Miles	85	19	104
Percentage of Total Miles	82	18	100